

#### **BY CERTIFIED U.S. MAIL**

Aug 1, 2023

Mr. James E. Kyle Air Permit Manager Piedmont Regional Office Virginia Department of Environmental Quality 4949-A Cox Road Glen Allen, VA 23060

#### RE: <u>Chesterfield Power Station (Reg. No. 50396)</u> <u>Chesterfield Energy Reliability Center Project</u> <u>Supplemental Revision to Prevention of Significant Deterioration Permit</u> <u>Application</u>

Dear Mr. Kyle:

Virginia Electric and Power Company d/b/a Dominion Energy (Dominion) operates the Chesterfield Power Station (Facility), an electric generating station located in Chesterfield County, Virginia under VA DEQ Title V Operating Permit No. PRO50396. Dominion is proposing, subject to relevant regulatory approval(s), to construct the Chesterfield Energy Reliability Center (CERC) at the Facility consisting of the installation of new simple-cycle combustion turbines (SCCT) and associated equipment. Dominion is providing this submission as a supplemental revision to the Prevention of Significant Deterioration (PSD) permit application dated December 13, 2019.

CERC will involve the construction of four (4) new General Electric SCCTs identified as ES-33, ES-34, ES-35, and ES-36, and will trigger review under the PSD program for CO, PM<sub>2.5</sub>, VOC, and GHG. PSD avoidance for all other New Source Review (NSR) pollutants will be achieved through emissions netting, operation of proposed air pollution control equipment, and permit limits. The PSD and minor NSR application for the CERC project is included with this submission.

The original PSD application and application fee were submitted to DEQ on December 13, 2019; however, no final permit was issued. Therefore, Dominion understands that no additional application fee is due because this submission updates material already timely filed with DEQ.

If you have any questions regarding this submittal, please contact T.R Andrake at (804) 839-2760 or via email at thomas.r.andrake@dominionenergy.com.

Sincerely,

Milly a. Jan

Molly A. Parker VP, Environmental & Sustainability

James E. Kyle Virginia Department of Environmental Quality Page 2

cc: Alison Sinclair, VA DEQ



# Air Permit Application for the Chesterfield Energy Reliability Center

ECT No. 230413-0700

VIRGINIA ELECTRIC AND POWER COMPANY Chesterfield County, Virginia

> Revision 1 July 2023



## **Document Review**

The dual signatory process is an integral part of Environmental Consulting & Technology, Inc.'s (ECT's) Document Review Policy No. 9.03. ECT documents undergo technical/peer review prior to dispatching these documents to an outside entity.

This document has been authored and reviewed by the following employees:

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Peer Review

July 31, 2023

Date

July 31, 2023

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Date



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## List of Acronyms and Abbreviations

°F	degree Fahrenheit
µg/m³	microgram per cubic meter
AAQS	ambient air quality standards
AERMAP	AERMOD terrain preprocessing program
AERMET	AERMOD meteorological preprocessing program
AERMIC	AMS/EPA Regulatory Model Improvement Committee
AERMOD	AERMIC model
AIG	AERMOD Implementation Guide
ARP	Acid Rain Program
BACT	Best Available Control Technology
BAL	Resource and Demand Balancing
BEEST	Providence Engineering and Environmental Group, LLC, BEEST suite
bhp	brake-horsepower
BPIP	Building Profile Input Program
BPIPPRM	BPIP for PRIME
BSER	best system of emissions reduction
Btu/kWh	British thermal unit per kilowatt-hour
CAA	Clean Air Act
CAIR	Clean Air Interstate Rule
CAM	compliance assurance monitoring
CCS	carbon capture and sequestration
CEMS	continuous emissions monitoring system
CFR	Code of Federal Regulations
CH <sub>4</sub>	methane
СО	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	carbon dioxide equivalent
CPS	Chesterfield Power Station
CSAPR	Cross-State Air Pollution Rule
СТ	combustion turbine
DOE	U.S. Department of Energy
Dominion	Dominion Energy Services, Inc.
ECT	Environmental Consulting & Technology, Inc.
EJ	Environmental Justice
EOR	enhanced oil recovery
EPA	U.S. Environmental Protection Agency
FBN	chemically fuel bound nitrogen
FR	Federal Register



## List of Acronyms and Abbreviations (Continued, Page 2 of 4)

fpsfoot per secondFuel OilNo. 2 fuel oil with 15 ppm or less sulfur in accordance with ASTM D396g/bhp-hrgrams per brake-horsepower-hourGAQMGuideline for Air Quality Models
g/bhp-hr grams per brake-horsepower-hour
GAQM Guideline for Air Quality Models
GCP good combustion practices
GeoTIFF geospatial tagged image file format
GEP good engineering practice
GHG greenhouse gas
gr/100 dscf grain per 100 dry standard cubic feet
GWP global warming potential
H <sub>2</sub> fuel blend Natural gas/hydrogen fuel blend with up to 10% hydrogen
H <sub>2</sub> O water
H <sub>2</sub> SO <sub>4</sub> sulfuric acid
H8H highest, eighth-highest
HAP hazardous air pollutant
HHV higher heating value
HP high-pressure
hr/yr hour per year
HRSG heat recovery steam generator
IP intermediate-pressure
ISO International Organization for Standardization
km kilometer
kWe kilowatt-electric
LAER lowest achievable emissions rate
lb pound
lb CO <sub>2</sub> /MWh pound of carbon dioxide per megawatt-hour
lb/hr pound per hour
lb/lb-mol pound per pound-mole
lb/MMBtu pound per million British thermal units
lb/MMcf pound per million cubic feet
lb/MWh pound per megawatt-hour
LLE Low Load Emergency
LP low-pressure
MACT maximum achievable control technology
MECL minimum emissions compliance load
MMBtu/hr million British thermal units per hour



## List of Acronyms and Abbreviations (Continued, Page 3 of 4)

MRLC	Multi-Resolution Land Characteristics Consortium
MW	Megawatt
MWe	Megawatt-electric
N <sub>2</sub>	molecular nitrogen
N <sub>2</sub> O	nitrous oxide
NAAQS	national ambient air quality standards
NED	National Elevation Dataset
NERC	North American Electric Reliability Corporation
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NETL	National Energy Technology Laboratory
NH <sub>3</sub>	ammonia
NLCD92	USGS National Land Cover Data 1992
NMHC	nonmethane hydrocarbon
NNSR	nonattainment new source review
NO	nitric oxide
NO <sub>2</sub>	nitrogen dioxide
NO <sub>x</sub>	nitrogen oxides
NSCR	nonselective catalytic reduction
NSPS	new source performance standards
NSR	new source review
O <sub>2</sub>	oxygen gas
PJM	PJM Interconnect
PM	particulate matter
PM <sub>10</sub>	particulate matter less than or equal to 10 micrometers
PM <sub>2.5</sub>	particulate matter less than or equal to 2.5 micrometers
ppb	part per billion
ppm	part per million
ppmv	part per million by volume
ppmvd	parts per million by volume, dry basis
PRIME	plume rise model enhancements
project	Chesterfield Energy Reliability Center
PSD	prevention of significant deterioration
psia	pound per square inch absolute
PTE	potential to emit
RACT	reasonably available control technology
RBLC	RACT/BACT/LAER Clearinghouse
RH	relative humidity
RMP	risk management program
SAAC	significant ambient air concentration



## List of Acronyms and Abbreviations (Continued, Page 4 of 4)

scf/lb-mol scf/MMBtu SCCT SCR SECARB SER SF6 SIL SIP SNCR SO2 SO3 tpy TSP USGS VAC	standard cubic foot per pound-mole standard cubic foot per million British thermal units simple cycle combustion turbine selective catalytic reduction Southeast Regional Carbon Sequestration Partnership significant emissions rate sulfur hexafluoride significant impact level state implementation plan selective noncatalytic reduction sulfur dioxide sulfur trioxide ton per year total suspended particulate U.S. Geological Survey Virginia Administrative Code
VAC VDEQ	Virginia Department of Environmental Quality
VDEQ VOC	Virginia Department of Environmental Quality volatile organic compound
	5



### 1.0 Introduction

Virginia Electric and Power Company, d/b/a Dominion Energy Virginia (Dominion, formerly d/b/a Dominion Virginia Power), is proposing to install the Chesterfield Energy Reliability Center (CERC) to be located on an approximate 94-acre parcel located within the James River Industrial Center in Chesterfield County, Virginia, adjacent to the existing Chesterfield Power Station (CPS). The CERC project will consist of four dual fuel simple-cycle combustion turbines (SCCT) firing primarily pipeline quality natural gas, as well as having the capability to fire No. 2 fuel oil with a maximum sulfur content of 15 ppm (fuel oil). Additionally, the SCCTs will be capable of operating on an advanced gaseous fuel blend consisting of natural gas with up to 10% hydrogen (H<sub>2</sub> fuel blend). One benefit of combusting H<sub>2</sub> fuel blend is the reduction in air emissions – especially greenhouse gas (GHG) emissions. The purpose and design of the CERC project is to respond quickly with reliable, dispatchable power generation to the grid when needed by the PJM Regional Transmission Operator (RTO)<sup>1</sup>. This includes during high demand periods, seasonal peaks, and extreme temperature events, as well as when intermittent generation resources (such as solar and wind) are unavailable or insufficient to meet customer needs. The proposed CERC dual-fuel SCCTs are focused on supporting the clean energy transition while also optimizing reliability and economics for our system customers.

PJM continues to add significant amounts of both solar and wind renewable generation capacity to its grid. Those resources are intermittent, in the sense that they depend on the availability of energy sources that fluctuate. While renewable generation reduces GHG emissions at the system-wide level, solar and wind capacity is operationally undependable with significant day-ahead and intra-day energy production variability, volatility, and intermittency. For grid stability and reliability, generating resources are required to be available to respond rapidly to changes in generation from both the renewable sources and normal changes in power demand. Failure to match generation to demand leads to frequency deviations in the interconnection, which, if severe enough, can cause customer load interruption or generators to trip offline through automated, protective action. To ensure reliability of the bulk power system, the North American Electric Reliability Corporation (NERC) has established operational requirements that must be adhered to by all responsible parties (including

<sup>&</sup>lt;sup>1</sup> PJM is an RTO that is part of the Eastern Interconnection grid operating an electric transmission system serving parts of Virginia, Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, West Virginia, and the District of Columbia.



Dominion and PJM), such as NERC Resource and Demand Balancing (BAL) standards. This project is designed specifically to help meet these operational requirements.

The proposed CERC SCCT units will help address PJM needs for peak firing capacity with the ability of coming online quickly. The project is being designed and permitted to follow market demand. The proposed General Electric 7FA.05 gas turbines will have a nominal power output of 250 MW-electric per turbine.

The simple-cycle turbines will be equipped with dry low-NO<sub>x</sub> (DLN) burners, which will reduce nitrogen oxides (NO<sub>x</sub>) emissions when combusting natural gas or H<sub>2</sub> fuel blend; water injection will be utilized when combusting fuel oil, to reduce NO<sub>x</sub> emissions. In addition, a selective catalytic reduction (SCR) system will be installed to further reduce emissions of NO<sub>x</sub>, as well as an oxidation catalyst to further reduce emissions of carbon monoxide (CO) and volatile organic compounds (VOC). Good combustion practices (GCP) and the use of clean burning fuels will reduce emissions of all pollutants including NO<sub>x</sub>, CO, particulate matter (PM), particulate matter less than 10 microns (PM<sub>10</sub>), particulate matter less than 2.5 microns (PM<sub>2.5</sub>), sulfur dioxide (SO<sub>2</sub>), sulfuric acid mist (H<sub>2</sub>SO<sub>4</sub>), VOC, and Greenhouse Gas Pollutants (GHGs).

Dominion is also proposing to add black start capability to CERC with the four (4) new SCCTs and six (6) new 3,500 kilowatt-electric (kWe) (nominal) fuel oil-fired emergency generators. The SCCTs are configured to startup using electrical power provided by the grid. In the event of electrical grid failure, the emergency generators will provide the required electrical power to start up a SCCT. During black start events, each of the proposed SCCTs will have the ability to operate in low load emergency (LLE) mode, which is defined as emergency operation below minimum emission compliance load (MECL) to restore the electrical grid. One of the SCCTs could operate in LLE mode during a period of grid restoration and would continue LLE mode operation until system restoration is achieved.

The proposed project will also include the following ancillary equipment:

- One natural gas-fired fuel gas heater nominally rated at 18.8 MMBtu/hr.
- One nominal 190 bhp emergency firewater pump operating on fuel oil.



The proposed CERC project, as indicated above, will be located on adjacent/adjoining property to the CPS, thus co-located and considered single source with CPS. The CERC project will be considered a "major modification" under Title I of the Clean Air Act (CAA). Dominion is applying to the Virginia Department of Environmental Quality (VDEQ) for a prevention of significant deterioration (PSD) and minor stationary source air construction permit, as required by VDEQ. VDEQ has a U.S. Environmental Protection Agency (EPA) state implementation plan (SIP)-approved PSD and minor stationary source air construction permit program.

This application addresses the permitting requirements specified by VDEQ under the Virginia State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution, Title 9, Agency 5, Chapter 80, found in the Virginia Administrative Code (VAC) at 9 VAC 5-80.

### 1.1 Applicant Information

To facilitate VDEQ's review of this document, Dominion's permitting contact is identified below. VDEQ should contact this individual if additional information or clarification is required during their review process. The permitting contact information is as follows:

T.R. Andrake Environmental Consultant Dominion Energy Services, Inc. DEES – Corporate Air Programs 120 Tredegar Street Richmond, VA 23219 804-839-2760 Thomas.R.Andrake@dominionenergy.com

### 1.2 **Project Location**

The proposed CERC project will be constructed in Chesterfield County approximately 4 miles northeast of Chester, Virginia, on approximate 94-acre parcel of property in the James River Industrial Center adjacent to the existing CPS which is located at 500 Coxendale Road as shown in Figure 1-1 and Figure 1-2. The proposed CERC project location is currently undeveloped, consisting of open pasture, mixed forest, and planted pine. Appendix D presents a detailed site plan of the proposed modification.



### 1.3 Facility Classification

There are two major classification criteria for the proposed project, one related to its industrial character and the other to its potential to emit (PTE) air pollutants. The designation of the facility under each of these is reviewed in the following subsections.

#### 1.3.1 Industrial Classification Code

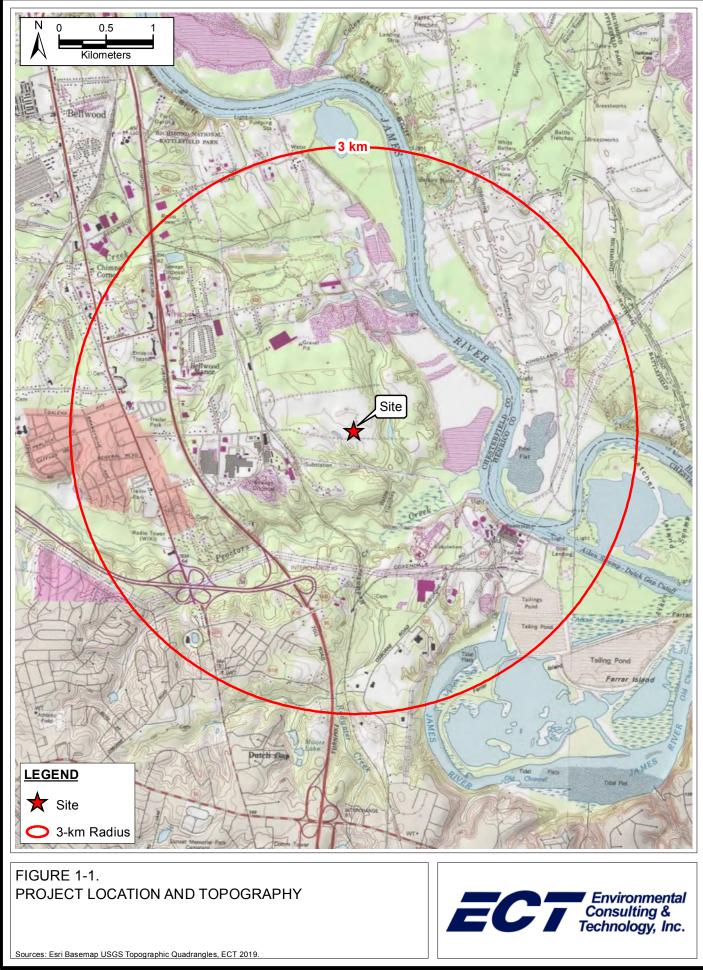
The United States government has devised the Standard Industrial Classification (SIC) code system, a method for grouping business activities according to their participation in the national commerce system. The system is based on classifying activities into major groups defined by the general character of a business operation. For example, electric, gas, and sanitary services, which include power production, are defined as a major group. Each major group is given a unique two-digit number for identification. Power production activities have been assigned a major group code "49."

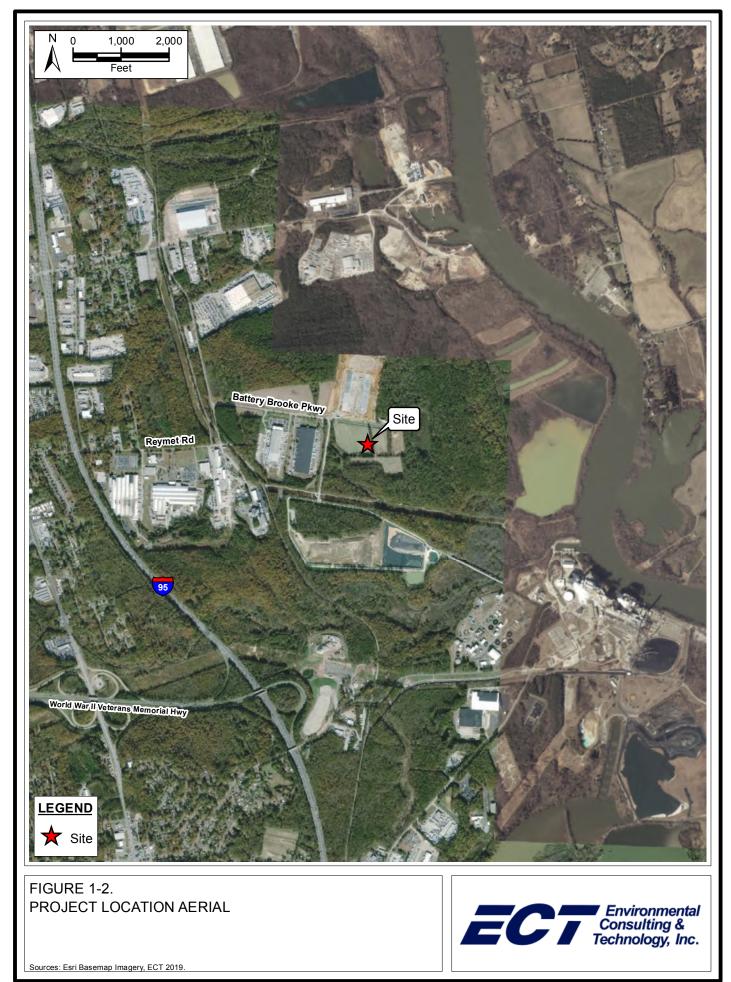
To provide more detailed identification of a particular operation, an additional two-digit code is appended to the major group code. In the case of power generation facilities, the two-digit code is "11" to define the type of production involved.

The proposed project is classified under the SIC code system as a major group of 49, electric, gas, and sanitary services, and then electric services of 11, or SIC 4911.

The North American Industry Classification System was introduced as a replacement for SIC codes in 1997. This system's organization is similar to SIC codes. Under this system, this facility would be classified as 221112, Fossil Fuel Electric Power Generation.







### 1.3.2 Air Quality Source Designation

With respect to air quality, new and existing industrial sources are classified as either major or minor sources based on their PTE of regulated air contaminants. This classification is also affected in part by whether the area in which the source is located is in attainment with national ambient air quality standards (NAAQS). EPA classifies an area as attainment or nonattainment on a pollutant-by-pollutant basis depending on what the concentration of each pollutant in the ambient air is relative to the standard for that pollutant. The area in which the proposed project is located is designated as attainment for all NAAQS in which EPA has issued a designation under Section 107 of the CAA.

CPS is considered a major stationary source. A major modification is defined as any physical change or change in the method of operation of a major stationary source that would result in a significant emission increase of a regulated NSR pollutant, and a significant net emission increase of that pollutant from the major stationary source. Based on the requested operational profile while combusting natural gas, H<sub>2</sub> fuel blend and fuel oil, the proposed CERC project will be classified as a major modification for some pollutants but not all and thus subject to review under PSD and stationary source (i.e., minor New Source Review (NSR)) permitting regulations.

#### 1.4 **Document Organization**

The balance of this document is divided into sections that address each component of the PSD and stationary source air quality review process for the proposed project. The following list provides an overview of the contents of each of the remaining sections:

- <u>Section 2.0: Process Description</u>—General description of the primary simple-cycle combustion turbines as well as a description of auxiliary and supporting equipment.
- <u>Section 3.0: Emissions Summary</u>—Detailed summary of potential air emissions occurring during normal steady state operations and startup/shutdown that will occur at the project site subsequent to completion of project construction and development.
- Section 4.0: Applicable Requirements and Standards—Discussion of applicable state and federal air regulations. The focus of this section will be on establishing which regulations are directly applicable to the proposed SCCTs and the ancillary equipment and how compliance will be demonstrated.



- <u>Section 5.0: Control Technology Review</u>—Detailed evaluation of control technologies. Project emissions are projected to be significant for PM<sub>2.5</sub>, CO, VOCs, and greenhouse gases (GHGs). As such, a "five-step, top down" best available control technology (BACT) analysis for these pollutants has been provided for each emissions unit. This section also includes minor source BACT determinations for NO<sub>x</sub>, PM, PM<sub>10</sub>, SO<sub>2</sub> and H<sub>2</sub>SO<sub>4</sub>, in accordance with the requirements of Virginia's minor NSR program.
- <u>Section 6.0: PSD Class II Modeling Procedures</u>—Summary of the dispersion modeling methodology and the manner in which the predicted impacts will be compared to the applicable standards. Specifically, this section discusses the modeling input data and various modeling scenarios evaluated.
- <u>Section 7.0: Results of the Class II Area Significant Impact Level Analysis</u>—Results of the Class II area significant impact analysis performed for the project.
- <u>Section 8.0: Class II Cumulative Impact Assessment Results</u>—Results of the Class II area air dispersion analysis performed for the project. This section compares predicted impacts to applicable standards to demonstrate the project will not cause or contribute to a NAAQS or PSD increment predicted exceedance.
- <u>Section 9.0: Other Air Quality Issues</u>—Supplemental information regarding potential impacts of the project. Specifically, this section discusses the potential for impacts to growth, soils, and vegetation and to the visibility of PSD Class I and Class II areas. This section also compares predicted impacts to Virginia's air toxics significant ambient air concentrations (SAACs).
- <u>Section 10.0: Site Suitability and Environmental Justice</u>—Summary of evaluation of the site's suitability, including environmental justice considerations, for the proposed project.
- <u>Section 11.0: References</u>—List of the documents relied upon during preparation of this document.
- <u>Appendices</u>—Permit application forms, emissions calculations, supporting BACT information, figures and diagrams, dispersion modeling files on computer disc, and supplemental materials supporting the information presented herein:
  - Appendix A—Application Forms
  - Appendix B—Emissions Calculations



- Appendix C—Control Technology Review from EPA's Reasonably Available
   Control Technology (RACT)/BACT/Lowest Achievable Emissions Rate (LAER)
   Clearinghouse (RBLC) Database
- Appendix D—Plot Plan
- Appendix E—Air Dispersion Modeling Files
- Appendix F—Background Emissions Inventory
- Appendix G—Air Quality Impacts, Contour Map
- Appendix H—Site Suitability and Environmental Justice Evaluation



## 2.0 Process Description

### 2.1 Overall Description

Dominion plans to modify the existing Chesterfield Power Station in Chesterfield County, Virginia, with the construction of four General Electric 7FA.05 SCCTs as part of the CERC project. The key elements of the proposed project include:

- Four (4) nominal 250 megawatt-electric (MWe) General Electric 7FA.05 SCCTs with SCR and oxidation catalyst, capable of firing the following fuels:
  - 1. 100% natural gas
  - 2. fuel oil.
  - 3. H<sub>2</sub> fuel blend (up to 10%)
- One (1) natural gas-fired fuel gas heater nominally rated at 18.8 MMBtu/hr.
- Six (6) nominal 3,500-kWe emergency generators operating on fuel oil.
- One (1) nominally rated 190-bhp emergency firewater pump operating on fuel oil.

The proposed CERC project will have a nominal generating capacity of 1,000 MWe at International Organization for Standardization (ISO) conditions (59°F, 14.7 psia, and 60% RH). The project will employ BACT to minimize emissions of PM<sub>2.5</sub>, CO, VOC, and GHG as required by Virginia's major source PSD program. The project will also employ BACT to minimize emissions of NO<sub>x</sub>, PM, PM<sub>10</sub>, SO<sub>2</sub>, and H<sub>2</sub>SO<sub>4</sub>, as required by Virginia's minor NSR program.

#### 2.2 Major Facility Components

The primary sources of pollutants associated with the proposed project are the General Electric 7FA.05 SCCTs. Other sources of pollutants associated with the proposed project include one fuel gas heater, six emergency generators, one emergency firewater pump, natural gas piping components, fuel oil storage tanks, and sixteen circuit breakers containing sulfur hexafluoride (SF<sub>6</sub>). The following subsections provide brief descriptions of the major components of the project.

#### 2.2.1 Simple-Cycle Turbines

The proposed project includes the construction and operation of four General Electric 7FA.05 SCCTs. The SCCTs will be dual-fueled, primarily firing pipeline-quality natural gas, with fuel oil as secondary



source when natural gas is unavailable or during a black start condition. The SCCTs will also have the capability of firing a H<sub>2</sub> fuel blend. To qualify as a capacity performance resource in the PJM Interconnect (PJM), the unit must be capable of sustained, predictable operation that allows the resource to be available throughout the entire delivery year to provide needed energy and reserves whenever PJM determines. The SCCTs will meet this condition by having the capability of combusting fuel oil with adequate onsite fuel oil storage. Dominion is considering various means of delivering hydrogen to the site to support the combustion of H<sub>2</sub> fuel blend in the SCCTs. If the hydrogen delivery method chosen results in additional sources of air emissions, Dominion will revise this application to include these emission sources.

Combustion turbines (CTs) are heat engines that convert latent fuel energy into work using compressed hot gas as the working medium. CTs deliver mechanical output by means of a rotating shaft used to drive an electrical generator, thereby converting a portion of the engine's mechanical output to electrical energy. Ambient air is first filtered and then compressed in the CT compressor section. The CT compressor increases the pressure of the intake combustion air stream which also raises its temperature. During warm days (typically 60 degrees Fahrenheit [°F] or greater), the CT inlet ambient air can be cooled by evaporative cooling prior to entering the CT compressor stage, thus providing denser air for combustion and increasing the power output. The compressed combustion air is then combined with the fuel in the CT's high pressure (HP) combustor and burned to produce hot exhaust gases. These HP, hot exhaust gases enter the CT turbine section and expand to turn the turbine rotor to produce rotary shaft power, which is used to drive an electric generator as well as the CT compressor. The CT exhaust gases will then pass through the SCR and oxidation catalyst before being discharged to the atmosphere through a stack.

The CTs will also be capable of using wet compression for additional power output. During fuel oil operation, water is injected directly into the CT compressor section to increase mass of the intake air and thus power output. Demineralized water will be used for the evaporative cooling and wet injection processes. During some operational conditions, the temperature of the fuel gas will be increased by the use of a natural gas-fired fuel gas heater to prevent condensation in the CT fuel gas system.

The General Electric 7FA.05 model combustion turbine has a nominal electric power output of 250 MWe at ISO conditions. NO<sub>x</sub> emissions are controlled via lean premix, dry low-NO<sub>x</sub> combustors,



when operating on natural gas or  $H_2$  fuel blend and are controlled via water injection when operating on fuel oil. SCR will be used to further control  $NO_x$  emissions from the SCCTs, and oxidation catalyst will control CO and VOC emissions.

Minimum emissions compliance load (MECL), is defined as the minimum load at which the combustion turbine can operate and remain in compliance with permitted emission limits. Since the MECL, expressed as a percentage of the base load, varies based on ambient temperature, there is no single numerical percent load that can define MECL across ambient operating conditions.

Potential emissions from the SCCTs will be based on the maximum emissions, on a pollutant-bypollutant basis, based on three separate annual operating scenarios. Annual operating scenario 1 will be based on 3,240 hours per year per turbine (hr/yr/turbine) of normal operation while combusting 100% natural gas and startup/shutdown (SUSD) emissions based on natural gas only. Annual operating scenario 2 will be based on operating 3,240 hr/yr/turbine of normal operation while combusting H<sub>2</sub> fuel blend and SUSD emissions based on natural gas only. Alternate operating scenario 3 will be based on operating 2,490 hr/yr/turbine of normal operation while combusting 100% natural gas and 750 hr/yr/turbine while combusting fuel oil and SUSD emissions based on natural gas and fuel oil.

The number of SUSD for the four turbines in aggregate will be limited to 2,000 startups per year and 2,000 shutdowns per year. This is equivalent to but not limited to 500 startups and 500 shutdowns for each CT per year with up to 120 startups and 120 shutdowns per year while firing fuel oil. This will be based on a 12-month rolling average. Since the SCCTs are designed to minimize time at SUSD events (30 minutes for startups and 15 minutes for shutdown), this will result in approximately 1,500 hr/yr of additional operation due to SUSD events for the four turbines. The SCCTs will only be capable of starting up on either 100% natural gas or fuel oil. The SCCTs will not be capable of starting up while combusting H<sub>2</sub> fuel blend. Potential SUSD emissions, therefore, only reflect combusting 100% natural gas or fuel oil. In addition, potential air emissions during SUSD events have conservatively not included emission reduction associated with either the SCR or oxidation catalyst.

The SCCTs will also be capable of operating in LLE mode, which is defined as extended operations at low loads below MECL, for the purpose of electrical grid restoration. The six emergency generators



will be used not only to supply the electrical power to start one SCCT in LLE mode but will also have the capability of providing electrical power to the site. This SCCT will continue to operate at continuously varying loads in LLE mode to stabilize the grid voltage. Operation of the SCCT in LLE mode to restore and stabilize the grid is considered an emergency mode and therefore, hours of operation will not be limited and are not included in the 3,240 hours/year proposed limit for normal operation. Operation of the turbines in LLE mode will be tested annually to demonstrate availability in that mode and that testing will be included in the 3,240 hours/year proposed limit for normal operation.

The SCCTs will be subject to the applicable requirements of New Source Performance Standard (NSPS) 40 CFR Part 60 Subpart KKKK (for Stationary Combustion Turbines), Subpart TTTT (for Electric Generating Units), NSPS Subpart A (General Provisions), and National Emission Standard for Hazardous Air Pollutants (NESHAP) 40 CFR Part 63 Subpart YYYY (for Stationary Combustion Turbines) and NESHAP Subpart A, (General Provisions).

#### 2.2.2 Fuel Gas Heater

The proposed project will utilize one fuel gas heater nominally rated at 18.8 MMBtu/hr. The heater will consist of two burners, with a separate exhaust stack for each burner, and will be used to heat the incoming natural gas fuel to prevent freezing of the gas regulating valves under certain gas system operating conditions. The heater will fire natural gas exclusively and use low-NO<sub>x</sub> burners to control NO<sub>x</sub> emissions. The heater will be permitted to operate 8,760 hours per year and will be capable of supporting any of the turbines. The fuel gas heater will be subject to the applicable requirements of NSPS 40 CFR Part 60 Subpart Dc (for Small Industrial-Commercial-Institutional Steam Generating Units) and NESHAP 40 CFR Part 63 Subpart DDDDD, (for Industrial, Commercial and Institutional Boilers and Process Heaters at Major Sources).

#### 2.2.3 Diesel-fired Emergency Generators

The proposed project will include six nominal 3,500-kWe emergency generators that will be powered by diesel engines operating on fuel oil. The emergency diesel generators will provide power in emergency situations when electrical power is not available from the grid. The emergency diesel generators are also intended to provide power for a black start scenario. The emergency diesel generators will not be used for peak shaving or non-emergency power. Each emergency generator will be operated up to 100 hr/yr for non-emergency operation including maintenance checks and



readiness testing. Operating hours during emergencies are not limited. Potential emissions for each emergency generator have been based on operating each generator 500 hours per year, based on EPA guidance that has been adopted by VDEQ. The diesel-fired emergency generators will be subject to the applicable requirements of NSPS 40 CFR Part 60 Subpart IIII (for Compression-Ignition Reciprocating Internal Combustion Engines), NSPS Subpart A (General Provisions), NESHAP 40 CFR Part 63 Subpart ZZZZ (for Stationary Reciprocating Internal Combustion Engines), and NESHAP Subpart A (General Provisions).

### 2.2.4 Diesel-fired Emergency Firewater Pump

The proposed project will include a nominal 190-bhp, diesel-fired emergency firewater pump engine to be used for water supply in the event of an on-site fire. The firewater pump engine will be limited to 100 hr/yr for routine testing and maintenance. Operating hours during emergencies are not limited. Potential emissions have been based on operating 500 hours per year, based on EPA guidance that has been adopted by VDEQ.

The diesel-fired emergency firewater pump engine will be subject to the applicable requirements of NSPS 40 CFR Part 60 Subpart IIII (for Compression-Ignition Reciprocating Internal Combustion Engines), NSPS Subpart A (General Provisions), NESHAP 40 CFR Part 63 Subpart ZZZZ (for Stationary Reciprocating Internal Combustion Engines).

## 2.2.5 Natural Gas Piping Components

The proposed project will include on-site natural gas piping and components including valves, flanges and relief valves associated with that piping. Small amounts of natural gas could potentially leak from these components, emitting VOCs and methane (CH<sub>4</sub>) into the atmosphere. In addition, small quantities of natural gas will be released from the fuel system during maintenance inspection activities. Methane is considered a GHG. A conservative estimate of natural gas piping components has been provided, along with an estimate of the potential VOC and GHG emissions from those components as well as from maintenance and inspection activities.

## 2.2.6 Circuit Breakers

The proposed project will include sixteen switchyard circuit breakers, each circuit breakers will contain 224 pounds (lb) of sulfur hexafluoride (SF<sub>6</sub>). SF<sub>6</sub> is considered a GHG and is used as an



electrical insulating gas within each circuit breaker. Based on the above individual circuit breaker capacities, the project's total SF<sub>6</sub> capacity will be 3,584 lb. SF<sub>6</sub> emissions have been based on a standard leak rate of 0.5 percent annually. Each circuit breaker will be equipped with a local density indicator to continuously monitor pressure/density and will provide an alarm for loss of gas.

### 2.2.7 Fuel Gas System

Natural gas will be delivered to the plant boundary. The natural gas companies that potentially will be supplying the natural gas for the project will provide natural gas with a sulfur content up to 0.4 grains per 100 dry standard cubic feet (gr/100 dscf) based on an annual average. To account for variability in the natural gas sulfur content on a short-term basis, hourly emissions have been based on 1.0 gr/100 dscf.

### 2.2.8 Fuel Oil Storage Tanks

The project will include a new 12-million gallon fuel oil storage tank to supply fuel oil for the SCCTs. Each emergency generator will be equipped with an integral 3,500-gallon fuel oil storage tank. The diesel-fired emergency firewater pump will be equipped with a 500-gallon fuel oil storage tank. Fuel oil deliveries to the facility will occur via barge or tanker truck for the 12-million gallon fuel oil storage tank and by tanker truck for the other storage tanks.



## 3.0 Project Emissions Summary

This section presents a summary, organized by emissions sources, of project emissions and a discussion of the methodology used to calculate emissions. Within each emissions source subsection, the methods used to calculate potential emissions are discussed followed by a summary of the emissions estimates for each specific emissions source.

As indicated previously, the project consists of the following sources of air emissions:

- Four (4) nominal 250-MWe General Electric 7FA.05 SCCTs capable of combusting 100% natural gas, fuel oil, or H<sub>2</sub> fuel blend.
- One (1) natural gas-fired fuel gas heaters nominally rated at 18.8 MMBtu/hr.
- Six (6) nominal 3,500-kWe emergency generators operating on fuel oil.
- One (1) nominal 190-bhp emergency firewater pump operating on fuel oil.
- Fuel oil storage tanks.
- Circuit breakers containing SF<sub>6</sub> insulating gas.
- Fugitive emissions (natural gas piping components, maintenance activities, and truck traffic).

Emissions and emission calculation procedures used in determining the potential emissions from the project are based on information provided by the CT manufacturer, other equipment vendor data, emissions limitations specified by applicable NSPS or NESHAP regulations, emissions factors documented in EPA's "Compilation of Air Pollution Emissions Factors, AP-42," and proposed BACT emissions limits. Annual operational limitations have been accounted for where appropriate while estimating potential annual emissions.

Appendix A provides the applicable VDEQ forms. Appendix B presents detailed potential emission calculations for each emissions source. Potential emissions for the SCCTs are presented for each annual operating scenario based on each SCCT operating for 3,240 hours per year of normal operation including 750 hours per year firing fuel oil. The SCCTs will be equipped with SCR and oxidation catalyst to control NO<sub>x</sub>, CO, and VOC emissions. Additionally, potential emissions include emissions based on each SCCT operating for 500 SUSD events which equates to an additional 1,500



hr/yr of operation for all four SCCTs during SUSD events. The potential emissions were compared to the PSD Significant Emission Rates to assess applicability of PSD requirements.

For purposes of assessing applicability to Virginia minor NSR permitting requirements, uncontrolled emissions must be calculated and compared to the thresholds listed in 9 VAC5-80-1105(D). Uncontrolled emissions from the combustion turbines are based on operating 8,760 hr/yr on either natural gas, fuel oil, or H<sub>2</sub> fuel blend, and assuming a natural gas sulfur content of 1 gr/100 scf. Uncontrolled emissions from emergency engines can be based on operating 500 hr/yr/per engine based on federal guidance adopted by DEQ. These uncontrolled emissions are discussed in more detail in Section 3.6.

#### 3.1 Simple Cycle Combustion Turbine: Maximum Hourly Emission Rates

The following subsections present maximum hourly and annual emissions for the SCCTs during normal operations and SUSDs. Appendix B provides additional details, such as emissions and flow calculations at various loads, ambient temperatures, and with and without evaporative cooling.

#### 3.1.1 Normal Operation Scenarios

Table 3-1 provides a summary of the maximum hourly emission rates for each mode of normal operation for natural gas, H<sub>2</sub> fuel blend, and fuel oil-firing. Performance and emissions data for twenty-two separate SCCT operating cases was provided by the CT manufacturer for natural gas, H<sub>2</sub> fuel blend, and fuel oil operation. These cases include ambient temperatures ranging from -10 deg. F to 107 deg. F, with and without evaporative cooling. For operating cases where the SCCTs are combusting natural gas or H<sub>2</sub> fuel blend, the SCCT load ranges from MECL to maximum power or 100% load. For operating cases where the SCCTs are combusting fuel oil, the SCCT load ranges from 50% load to maximum power or 100% load.

#### 3.1.2 Startup and Shutdown

Startup and shutdown events for the project are defined as follows:

- <u>Startup</u>—Operations occurring between first flame and compliance with the steadystate emissions limit. Specifically:
  - <u>Natural Gas Startup</u>—A startup when firing natural gas is defined as the operations occurring between first flame until the SCCT reaches MECL with all steady-state emission limits.



- <u>Fuel Oil Startup</u>—A startup when firing fuel oil is defined as the operations occurring between first flame until the SCCT reaches compliance with all steadystate emission limits (assumed to occur at 50% steady-state load).
- $\circ$  Note: The SCCTs will not be capable of starting up on H<sub>2</sub> fuel blend.
- <u>Shutdown</u>—
  - <u>Natural Gas/H<sub>2</sub> Fuel Blend Shutdown</u>—Operations occurring between MECL and flame-out of the SCCT.
  - <u>Fuel Oil Shutdown</u>—Operations occurring between 50% load and flame-out of the SCCT.

Each startup event is expected to be 30 minutes. This is the amount of time required for the turbine to reach steady state conditions even though the units can start producing power in approximately 10 minutes for a quick start or 21 minutes for a slow start. Each shutdown is expected to be 15 minutes.

	Maximum Hourly Emissions (lb/hr)			
Pollutant	100% Natural Gas-Firing	H₂ fuel blend-Firing	Fuel Oil-Firing	
NO <sub>x</sub>	23.3	23.0	47.9	
CO	11.3	11.2	11.7	
VOC	3.2	3.2	6.7	
PM (filterable)	11.9**	11.8**	24.0	
PM <sub>10</sub> /PM <sub>2.5</sub> (total)	19.7**	19.5**	45.0	
SO <sub>2</sub>	8.2**	8.1**	4.5	
$H_2SO_4$	5.6**	5.5**	3.0	
Lead	1.2E-03	1.2E-03	3.4E-02	
GHGs (expressed as CO <sub>2</sub> e) <sup>***</sup>	286,380	283,390	401,195	

#### Table 3-1. Hourly Emissions per Turbine during Normal Operations\*

\*See Appendix B, Tables B-1 through B-3 for a summary of the CT manufacturer operating cases which includes hourly emission data at various ambient temperatures, loads, with and without evaporative cooling and with SCR and oxidation catalyst controls.

\*\* Based on maximum natural gas short-term sulfur content of 1.0 gr S/100 scf and  $H_2SO_4$  formation from operation of the SCR



\*\*\* Includes contribution from methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O) Source: General Electric, 2023.

Table 3-2 summarizes emissions during SUSD events. NO<sub>x</sub>, CO, PM<sub>10</sub>/PM<sub>2.5</sub>, and VOC emissions were provided by the CT manufacturer. PM SUSD emissions were calculated based on the total PM<sub>10</sub>/PM<sub>2.5</sub> emissions provided by the CT manufacturer and the maximum ratio of filterable to total PM emissions during normal operation. The total amount of fuel combusted during a SUSD event was also provided by the CT manufacturer. The total fuel combusted was used to estimate SO<sub>2</sub>, H<sub>2</sub>SO<sub>4</sub>, and GHG emissions during SUSD events. (See Tables B-4, B-12, B-13, and B-14 for detailed SO<sub>2</sub>, H<sub>2</sub>SO<sub>4</sub>, and GHG SUSD emissions.) These SUSD emissions conservatively assume no emission control due to the SCR or oxidation catalyst.

	Natural Gas		Fuel Oil	
	Startup	Shutdown*	Startup	Shutdown
Duration (min)	30	15	30	15
Pollutant	Emission Rate (lb/event)			
NO <sub>x</sub>	52	20	143	62
CO	366	152	1036	246
VOC	65	31	101	47
PM	2	1	10	5
<b>PM</b> <sub>10</sub>	4	2	21	10
PM <sub>2.5</sub>	4	2	21	10
SO <sub>2</sub>	4	1	2	1
$H_2SO_4$	2	1	1	1
CO <sub>2</sub>	133,819	34,904	186,431	48,626
Fuel	Fuel Consumption Rate (MMBtu/event)			
Natural Gas/Fuel Oil	1,031	269	1,031	269

#### Table 3-2. SCCT Durations, Emissions during Startup and Shutdown Events (Per SCCT)

\*Shutdown emissions are for shutdown on natural gas or H<sub>2</sub> fuel blend.

Source: General Electric, 2023.



#### 3.1.3 LLE Mode of Operation

Operation in LLE mode will only occur in an actual emergency, i.e., when there is a failure of the electrical grid, and during annual testing to demonstrate availability. In the event a black start is required, the CERC emergency generators will operate at full load until one SCCT can be started up in LLE mode. This SCCT will operate in continuously varying loads in LLE mode in order to stabilize and restore the electrical grid. Emissions associated with the annual testing are accounted for in the annual emission limits for the SCCTs.

#### 3.2 <u>Simple Cycle Combustion Turbine: Potential Annual Emissions</u>

SCCT fuel firing rates and emissions rates vary as a function of operating load and ambient temperature. In addition, emissions rates of some pollutants (e.g., NO<sub>x</sub> and CO) can be higher during startups and shutdowns as compared to normal operation, while emissions of other pollutants are typically higher during normal full-power operation (e.g., PM). Operation of the SCCT results in different emission rates for hazardous air pollutants (HAPs) as well. Therefore, to develop reasonable, yet conservative, estimates of potential emissions from the project, three potential annual operating scenarios were evaluated, encompassing the expected range of operating assumptions and numbers of startups and shutdowns to satisfy expected electricity demand from the SCCTs. The three operating scenarios evaluated were:

- <u>Scenario 1</u>—Potential emissions based on each SCCT operating 3,240 hours per year of normal operation on natural gas only and 500 startups and 500 shutdowns on natural gas only.
- <u>Scenario 2</u> Potential emission based on each SCCT operating 3,240 hours per year of normal operation on H<sub>2</sub> fuel blend and 500 startups on natural gas only and 500 shutdowns on H<sub>2</sub> fuel blend only.
- <u>Scenario 3</u>—Potential emissions based on each SCCT operating 3,240 hours per year of normal operation, 2,490 hr/yr on natural gas and 750 hr/yr on fuel oil, and 500 startups and 500 shutdowns, 380 on natural gas and 120 on fuel oil.

While Scenario 3 produces the maximum emissions for each criteria pollutant, neither Scenario 1, 2 or 3 produces the maximum emissions for every HAP; therefore, maximum emissions were based on Scenario 3 for each criteria pollutant and the highest of either scenario for each individual HAP.



Maximum emissions from the operating scenarios were calculated and are proposed to establish annual emissions limits. Tables 3-3 and 3-4 present the annual emissions (tpy) of regulated NSR pollutants and HAPs, respectively.



	:	SCCT Potential Ann	ual Emissions (tpy)	
Pollutant	Scenario 1	Scenario 2	Scenario 3	Potential Emissions
NO	222.09	221 14	201.99	201.00
NO <sub>x</sub> CO	223.08 591.12	221.14 590.48	291.88 774.96	291.88 774.96
VOC	116.74	116.74	134.49	134.49
PM (filterable)	51.17	50.78	79.00	79.00
PM <sub>10</sub> /PM <sub>2.5</sub> (total)	98.06	97.42	150.21	150.21
SO <sub>2</sub>	26.45	24.91	27.62	27.62
$H_2SO_4$	17.90	17.29	18.63	18.63
Lead	0.0083	0.0082	0.062	0.062
CO <sub>2</sub>	2,008,033	1,988,656	2,194,773	2,194,733
Methane	37.8	37.4	55.4	55.4
Nitrous oxide	3.8	3.7	8.2	8.2
GHG Mass	2,006,003	1,986,645	2,191,014	2,191,014
CO <sub>2</sub> e	2,008,033	1,988,656	2,194,773	2,194,773

## Table 3-3. SCCT Potential Annual Emissions (Total for Four Units)

Note:  $CO_2$  = carbon dioxide.  $CO_2e$  = carbon dioxide equivalent.

Source: ECT, 2023.



Pollutant†	Scenario 1	Scenario 2	Scenario 3	Potential Emissions (tpy)*
Acetaldehyde	0.69	0.68	0.53	0.69
Acrolein	0.05	0.00	0.08	0.05
Benzene	0.21	0.20	0.38	0.38
Ethylbenzene	0.55	0.54	0.42	0.55
Formaldehyde	4.51	4.47	5.06	5.06
Manganese	0.01	0.01	3.16	3.16
Polycyclic Aromatic Hydrocarbons (PAHs)	0.04	0.04	0.19	0.19
Propylene Oxide	0.50	0.49	0.38	0.50
Toluene	2.23	2.21	1.71	2.23
Xylene	1.10	1.09	0.84	1.10
Other HAPs	0.10	0.10	0.60	0.60
Total	10.05	9.96	13.34	13.34

## Table 3-4. SCCT Potential Annual HAP Emissions (Total for Four Units)

Note: See Appendix B, Table B-12, B-13, and B-14 for detailed calculations.

<sup>†</sup>The highest ten CT HAPs in terms of annual emissions are presented in this table. The remaining HAP emissions are presented under the group "Other HAPs."

\*Potential emissions for individual and total HAPs are based on the highest emissions from either Scenario 1, Scenario 2, or Scenario 3.

Source: ECT, 2023.

# 3.3 Ancillary Equipment

The project will include one fuel gas heater, six emergency generators, and one emergency firewater pump. Table 3-5 presents emissions calculations of regulated NSR pollutants and HAPs from the ancillary equipment, and Appendix B, Tables B-15 through B-17, provide detailed emissions calculations for the fuel gas heater, emergency generators, and emergency firewater pump. Emission calculations for the annual fuel oil throughput through the proposed fuel oil storage tanks are also provided in Appendix B.

# 3.3.1 Fuel Gas Heater

One (1) nominal 18.8-MMBtu/hr, natural gas-fired, fuel gas heater will be utilized for the proposed project. The heater will heat the natural gas prior to its use as fuel for the turbines to prevent condensed liquids in the natural gas from damaging the combustor sections of the turbine.



Emissions of air contaminants were calculated based on ultra-low NOx burners, AP-42 and Ventura County Air Pollution Control District emission factors and operating 8,760 hours per year. Table 3-5 presents emission rates of PSD pollutants and HAPs from the fuel gas heater, and Appendix B, Table B-15 provides detailed emissions calculations.

# 3.3.2 Diesel-Fired Emergency Generators

The facility will have six (6) nominal 3,500-kWe emergency generators, each powered by a nominal 4,694-bhp diesel-fired engine. The diesel-fired emergency generators will meet the emissions requirements in EPA's Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, July 11, 2006 (40 CFR 60, Subpart IIII). The diesel-fired emergency generators will also meet the applicable requirements of 40 CFR 63, Subpart ZZZZ. The emergency generators will be limited to 100 hr/yr per engine for non-emergency generators are considered emergency stationary RICE, rated greater than 500 hp and located at a major source of HAPS, they do not need to comply with 40 CFR 63, Subpart A or Subpart ZZZZ, except for the initial notification requirements 40 CFR 63.6645(f).

Potential emissions have been based on each engine operating 500 hr/yr in accordance with EPA guidance that has been adopted by VDEQ. There is no limit to the operation of the emergency generators during an emergency situation. Table 3-5 presents emissions calculations of regulated NSR pollutants and HAPs from the emergency generators, and Appendix B, Table B-17 provides detailed emissions calculations.

# 3.3.3 Diesel-Fired Emergency Firewater Pump

The facility will include one (1) nominal 190-bhp diesel-fired emergency firewater pump engine. The diesel-fired emergency firewater pump will meet the emissions requirements in EPA's Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, July 11, 2006 (40 CFR 60, Subpart IIII). The diesel-fired emergency firewater pump engine will also meet the requirements of 40 CFR 63, Subpart ZZZZ. Since the diesel-fired emergency firewater pump engine is rated less than 500 hp and located at a major source of HAPS, the only requirement for the emergency firewater pump engine under Subpart ZZZZ is to comply with the applicable requirements of 40 CFR 60, Subpart IIII. The emergency firewater pump engine will be limited to 100 hr/yr for non-emergency operation including maintenance checks and readiness testing.



Potential emissions have been based on operating 500 hr/yr in accordance with EPA guidance that has been adopted by VDEQ. There is no limit to the operation of the emergency firewater pump during an emergency situation. Table 3-5 presents emissions calculations of regulated NSR pollutants and HAPs from the emergency firewater pump engine, and Appendix B, Table B-16 provides detailed emissions calculations.



## Table 3-5. Auxiliary Equipment Potential Annual Emissions

	Fuel Gas	Heater	Emergency Ge	nerator*		Fire Water mp	Fugi	tives
Pollutant	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
NO <sub>x</sub>	0.21	0.91	34.57	8.64	0.88	0.22	N/A	N/A
со	0.70	3.05	27.01	6.75	1.09	0.27	N/A	N/A
VOC	0.09	0.41	14.82	3.70	0.38	0.09	0.4	1.6
PM	0.04	0.15	1.54	0.39	0.06	0.02	0.03	0.11
PM <sub>10</sub> /PM <sub>2.5</sub>	0.13	0.58	1.80	0.45	0.61	0.15	0.01	0.02
5O <sub>2</sub>	0.02	0.10	0.05	0.01	0.39	0.10	N/A	N/A
H <sub>2</sub> SO <sub>4</sub>	0.005	0.02	0.004	9.97E-04	0.03	0.01	N/A	N/A
Lead	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	N/A	N/A
HAPS (total)	1.1E-02	5.00E-02	5.8E-02	1.4E-02	Neg.	Neg.	Neg.	Neg.
GHG (as CO <sub>2</sub> e)	2,202	9,644	5,520	1,380	238	59	32	140

Source: ECT, 2023.

\*Per source.



# 3.3.4 Fuel Oil Storage Tanks

The project includes installation of a new 12-million gallon fuel oil storage tank. The project also will include six integral 3,500-gallon belly storage tanks for the six nominal 3,500-kWe emergency generators and one 500-gallon horizontal storage tank for the diesel-fired firewater pump engine. NSPS Subpart Kb does not apply to these storage tanks because of the low vapor pressure of fuel oil, as discussed in Section 4.4.4. VOC emissions were calculated using the Trinity Breeze TankESP Pro (Version 5.2.0). VOC emissions were calculated assuming a potential throughput equal to the maximum hourly fuel oil consumption rate for the SCCTs and operating the maximum 750 hours per year per SCCT. Table 3-5 presents VOC emissions from the new fuel oil storage tank based on this annual throughput and Appendix B, Table B-22 provides the basis for the VOC emission calculations. VOC emissions from the fuel oil tanks for the emergency engines are considered insignificant.

## 3.3.5 Circuit Breakers

The proposed project will include sixteen switchyard circuit breakers, each of the circuit breakers will contain 224 lb of SF<sub>6</sub> per unit. Therefore, the total SF<sub>6</sub> capacity at the facility will be 3,584 lb. The SF<sub>6</sub> leak rate will be limited to 0.5 percent on an annual basis. SF<sub>6</sub> emissions (as carbon dioxide equivalent [CO<sub>2</sub>e]) from this source are expected to represent only 0.01 percent of the facility's CO<sub>2</sub>e emissions. Appendix B, Table B-5, provides detailed emissions calculations.

## 3.3.6 Fugitive Emissions

VOC and GHG emission calculations for natural gas piping component fugitive emissions are based on emissions factors from Table W-1A of the Mandatory GHG Reporting Rules (40 CFR 98) for components in gas service for the Eastern United States. These emission factors provide the methodology for estimating the total mass emission rate of natural gas emitted from natural gas piping components. Releases of natural gas from annual maintenance and inspection activities is based on a conservative estimated volume of natural gas contained in the fuel system required to be purged.

Project-specific natural gas composition data, which was used to calculate each constituent percent (by weight), was used to calculate total VOC and GHG emissions from natural gas piping components and maintenance activities. GHG emissions consist of calculating both CO<sub>2</sub> and CH<sub>4</sub> emissions. HAP



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emissions from natural gas piping components and maintenance activities are considered insignificant.

The global warming potential (GWP) factors used to calculate CO<sub>2</sub>e emissions are based on Table A-1 of 40 CFR 98. Appendix B, Table B-5 provides an estimate of the number of natural gas piping components, emission factors used and detailed calculations of GHG emission from natural gas piping components as well as from maintenance activities. Appendix B, Table B-23 provides detailed calculations of VOC emissions from natural gas piping components and maintenance activities.

Fugitive particulate matter emissions from truck traffic occur from aqueous ammonia, fuel oil tanker trucks, and demineralized water trailer trucks traveling across the paved road surfaces to and from the facility entrance to the loading areas. Emissions from truck traffic were estimated using emission calculation methodologies and factors provided in EPA's AP-42, Section 13.2.1 Paved Roads. These methodologies utilize equation inputs that include vehicle weights, vehicle miles traveled and road silt content. Appendix B, Table B-24 provides detailed calculations of particulate matter emissions from truck traffic.

# 3.4 **Project Emissions**

Table 3-6 presents the annual PTE of the project for the installation of four General Electric 7FA.05 SCCTs and the associated ancillary equipment (see Appendix B for details). A PSD applicability analysis is presented in Section 3.5, including the potential emissions from this project and other contemporaneous emissions increases and decreases.

Potential HAP emissions are estimated to be 14.68 tpy, with maximum single HAP emissions of 5.07 tpy (formaldehyde). Since these values are below the relevant major source thresholds of 25 tpy for all HAPs or 10 tpy for a single HAP the project by itself would not be considered a major source of HAP emissions.



Emission Source					Pai	rameters	(tpy)			
Description	NOx	со	voc	РМ	<b>PM</b> 10	PM2.5	SO <sub>2</sub>	H <sub>2</sub> SO <sub>4</sub>	Lead	GHG (CO₂e)
Four SCCTs	291.88	774.96	134.49	79.00	150.21	150.21	27.62	18.63	0.06	2,194,773
One Fuel Gas Heater	0.91	3.05	0.4	0.15	0.61	0.61	0.09	0.02	Neg	9,644
Six Diesel-fired	51.85	40.51	22.22	2.31	2.70	2.70	0.08	0.006	Neg.	8,279
Emergency									-	
Generators										
One Diesel-fired Fire	0.22	0.27	0.09	0.02	0.15	0.15	0.10	0.007	Neg.	59
Water Pump									-01	
Fuel Oil Storage Tanks	N/A	N/A	1.61	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fugitives	N/A	N/A	0.022	0.011	0.022	0.005	N/A	N/A	N/A	140
Circuit Breakers	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	204
Total project emissions	344.86	818.79	158.85	81.59	153.66	153.66	27.89	18.66	0.06	2,213,100

## Table 3-6. Total Annual Project Potential Emissions

Source: ECT, 2023.

# 3.5 PSD Applicability

As stated in Section 1.3, CPS is considered an existing major stationary source under the PSD regulations. A major modification is defined as any physical change or change in the method of operation of a major stationary source that would result in (1) a significant emission increase of a regulated NSR pollutant, and (2) a significant net emission increase of that pollutant from the major stationary source.

The first step is commonly referred to as the "Project Emission Increase" as it only accounts for emissions increases related to the proposed project itself. This step in the analysis does not include the proposed shutdown of any equipment at the facility. If the emissions increases estimated in step (1) exceed the major modification thresholds, then the applicant moves on to step (2), commonly referred to as the "Netting Analysis." If the resulting net emission increases exceed the major modification threshold, PSD permitting is required.

Table 3-7 compares the worst-case potential emissions for the proposed project to the PSD significant emission rate (SER). As shown, the project emissions increase does not exceed the PSD SER for SO<sub>2</sub> and lead. Therefore, the project is not subject to PSD for SO<sub>2</sub> and lead, and the analysis for these pollutants is complete. However, the project emissions increase exceeds the PSD SER for NO<sub>x</sub>, CO, VOC, PM, PM<sub>10</sub>, PM<sub>2.5</sub>, H<sub>2</sub>SO<sub>4</sub>, and GHGs. Therefore, the analysis proceeds to step 2 for these pollutants.



Emission Source					Param	eters (tpy)				
Description	NO <sub>x</sub>	со	voc	РМ	<b>PM</b> <sub>10</sub>	PM <sub>2.5</sub>	SO2	H <sub>2</sub> SO <sub>4</sub>	Lead	GHG (CO₂e)
Total project emissions	344.86	818.79	158.85	81.59	153.66	153.66	27.89	18.66	0.06	2,213,100
PSD SER	40	100	40	25	15	10	40	7	0.6	75,000
Netting Required?	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes

#### Table 3-7. Total Annual Project Potential Emissions

Note: Facility is located in Chesterfield County, Virginia, which is designated as either unclassifiable or attainment for all pollutants.

Source: ECT, 2023.

The contemporaneous netting analysis under Step 2 looks at creditable emissions increases and decreases within the five years preceding the anticipated date of construction for the project up to when the project becomes operational and adds them to the project emissions increase calculated in Step 1. CPS permitted three projects in this time period, including the Coal Combustion Residual Pond Closure (February 2021), Beneficial Use Processing and Material Handling Equipment (November 2021), and the Replacement of Existing Thermoflux Pipeline Heater with New Gas Tech Pipeline Heater (April 2022). The maximum permitted emissions are assumed to be the creditable emissions increase for each of these projects.

In addition, CPS has just completed the permanent shutdown of Boilers 5 and 6 (May 2023). Baseline actual emissions are the maximum average actual emissions occurring over any consecutive 24-month period within the contemporaneous period. A different 24-month period may be selected for each pollutant. Baseline emissions from Boilers 5 and 6 have been estimated using site records (fuel use, CEM data, etc.) to determine the creditable emissions decrease associated with the shutdown. The emissions decreases associated with these activities have not been relied upon in issuing a permit under the PSD review program; therefore, they meet the definition of creditable. Appendix B provides detailed documentation for the baseline emissions from Boilers 5 and 6.

Table 3-8 summarizes the total net emissions changes over the contemporaneous period for NO<sub>x</sub>, CO, VOC, PM, PM<sub>10</sub>, PM<sub>2.5</sub>, H<sub>2</sub>SO<sub>4</sub>, and GHGs. As shown, the net emissions increase exceeds the PSD SER for CO, VOC, PM<sub>2.5</sub>, and GHGs, and the CERC project is subject to PSD as a major modification for these pollutants. However, the net emissions increase does not exceed the PSD SER for NO<sub>x</sub>, PM, PM<sub>10</sub>, and H<sub>2</sub>SO<sub>4</sub>. As such, the project is not subject to PSD for these pollutants.



Emission Source				Paramo	eters (tpy)			
Description	NO <sub>x</sub>	со	voc	РМ	<b>PM</b> <sub>10</sub>	PM <sub>2.5</sub>	H <sub>2</sub> SO <sub>4</sub>	GHG (CO₂e)
<b>-</b>	244.06	040 70	450.05	04 50	452.66	452.66	10.00	2 242 400
Total project emissions	344.86	818.79	158.85	81.59	153.66	153.66	18.66	2,213,100
Boiler 5 & 6 Shutdown	(453.55)	(165.28)	(19.29)	(277.75)	(221.96)	(43.99)	(427.97)	(1,700,338)
Pond Closure Project	N/A	N/A	N/A	42.39	12.08	1.49	N/A	N/A
Beneficial Use Proc. Equip.	3.74	18.41	3.07	4.46	2.48	2.07	0.022	2,317
Gas Tech Pipeline Heater	3.50	2.94	0.19	0.01	0.02	0.02	0.02	3,819
Net Emissions Increase	(101)	675	143	(149)	(54)	113	(409)	518,898
PSD SER	40	100	40	25	15	10	7	75,000
Project Exceeds SER?	No	Yes	Yes	No	No	Yes	No	Yes

#### Table 3-8. Contemporaneous Netting Analysis

Note: Facility is located in Chesterfield County, Virginia, which is designated as either unclassifiable or attainment for all pollutants.

Source: ECT, 2023.

# 3.6 **<u>Project Emissions for Virginia Minor NSR Applicability</u>**

In addition to the PSD program, Virginia has a minor NSR program for pollutants with uncontrolled emissions rates that exceeds certain thresholds in 9VAC5-80-1105 D. Because the levels provided in 9VAC5-80-1105 D are equal to or lower than those levels provided in the definition of "significant" under the PSD regulations, the project would trigger Virginia minor NSR permitting requirements for the pollutants for which the project triggers PSD, including CO, VOC, PM<sub>2.5</sub>, and GHG. However, 9VAC5-80-1100.H indicates that PSD provisions take precedent.

As previously discussed, the applicability analysis for Virginia's minor NSR program cannot take into account limits on hours of operation, sulfur content and other conditions unless they are required by enforceable permit conditions. Therefore, uncontrolled emission rates are calculated for those pollutants that do not exceed PSD applicability thresholds, including NO<sub>x</sub>, PM, PM<sub>10</sub>, SO<sub>2</sub>, H<sub>2</sub>SO<sub>4</sub>, and lead, based on the following conditions to determine minor NSR permitting applicability:

- 1. Hours of operation for the SCCTs based on 8,760 hr/yr.
- The sulfur content of the natural gas combusted in the SCCTs and the fuel gas heater based on the highest potential sulfur content of natural gas available at the project site or 1.0 gr S/100 scf.
- 3. The sulfur content of the fuel oil combusted in the SCCTs based on the sulfur content limit contained in NSPS Subpart KKKK or 0.06 lb SO<sub>2</sub>/MMBtu heat input.



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The potential hours of operation for each emergency engine can remain at 500 hr/yr since this annual operating limit is based on federal guidance that has been adopted by VDEQ.

Table 3-9 provides a summary of the uncontrolled emission rates for comparison to the Virginia Minor NSR applicability thresholds. Based on the uncontrolled emissions rates, minor NSR permitting is triggered for NOx, PM, PM<sub>10</sub>, SO<sub>2</sub>, and H<sub>2</sub>SO<sub>4</sub>, but not lead.

Emission Source Description	NOx	PM	<b>PM</b> <sub>10</sub>	SO <sub>2</sub>	H <sub>2</sub> SO <sub>4</sub>	Lead
Four SCCTs	6,977.2	423.9	781.4	141.9	96.9	0.59
One fuel gas heater	0.9	0.2	0.6	0.1	0.02	4.04E-05
Six diesel-fired emergency generators	51.9	2.3	2.70	0.01	0.006	4.6E-04
One diesel-fired firewater pump	0.2	0.02	0.2	0.1	0.008	3.3E-06
Fuel Oil ASTs	N/A	N/A	N/A	N/A	N/A	N/A
Fugitive emissions	N/A	0.11	0.02	N/A	N/A	N/A
Circuit breakers	N/A	N/A	N/A	N/A	N/A	N/A
Total uncontrolled project emissions	7,030.0	427.0	785.0	142.2	96.9	0.59
Virginia Minor NSR threshold	10	15	10	10	6	0.6
Subject to Virginia Minor NSR	Yes	Yes	Yes	Yes	Yes	No

## Table 3-9. Uncontrolled Emission Rates for Virginia Minor NSR Applicability (tpy)

\*See Appendix B, Tables B-18 through B-21, for detailed calculations.

Source: ECT, 2023.



# 4.0 Applicable Requirements and Standards

This section presents a review of the air quality regulations that will govern permitting and operation of the proposed project. Specifically, the following regulations and standards were reviewed for applicability to the proposed project:

- VDEQ PSD regulations.
- Good engineering practice (GEP) stack height regulations.
- NSPS.
- National Emissions Standards for Hazardous Air Pollutants (NESHAP).
- Compliance assurance monitoring (CAM). •
- Mandatory Greenhouse Gas Reporting
- EPA's Acid Rain Program (ARP) regulations.
- Risk management program (RMP).
- Title V permit program.
- Cross-State Air Pollution Rule (CSAPR).
- VDEQ Minor NSR regulations.
- Virginia SIP.
- CO<sub>2</sub> Budget Trading Program.

Federal regulatory programs, as administered by or delegated to VDEQ and approved by EPA, have been developed under the authority of the CAA and its amendments. The following subsections review the key elements of the federal regulatory program and the impact they have on the permitting and operation of the proposed project. Attention is placed on PSD (9VAC5-80-1605), NSPS (40 CFR 60), NESHAP (40 CFR 61 and 63), RMP (40 CFR 68), ARP regulations (40 CFR 72, 73, 75, 76, and 77), and CSAPR (40 CFR 97). Discussion of applicable Virginia regulatory citations is also included in this section.

The CAM Rule, 40 CFR Part 64, addresses monitoring for certain emission units at major sources, thereby assuring that facility owners and operators conduct effective monitoring of their air pollution control equipment. A CAM Plan is not a requirement of a Construction Permit Application. A CAM Plan requires a final design of the facility and specific vendor information; hence, it is not usually prepared until the final parameters are selected and the facility starts operating. Since this is a pre-construction permit, a CAM Plan is not included as part of this application.

# 4.1 <u>Classification with Regard to Ambient Air Quality</u>

The 1970 CAA gave EPA specific authority to establish the minimum level of air quality to protect public health (primary) and welfare (secondary). Table 4-1 presents the federally promulgated standards, adopted by Virginia as state standards.



Averaging Period* –	Primary	Secondary
Annual‡	80	—§
24-hour‡	365	—§
1-hour	196	—§
3-hour	—§	1,300
24-hour	150	150
Annual	12	15
24-hour	35	35
8-hour	10,000	—§
1-hour	40,000	—§
8-hour	0.070 ppm	0.070 ppm
Annual	53 ppb	53 ppb
1-hour	100 ppb	—§
3-month£	0.15	—§
	1-hour 3-hour 24-hour Annual 24-hour 8-hour 1-hour 8-hour Annual 1-hour	1-hour       196         3-hour       —§         24-hour       150         Annual       12         24-hour       35         8-hour       10,000         1-hour       40,000         8-hour       0.070 ppm         Annual       53 ppb         1-hour       100 ppb

## Table 4-1. Ambient Air Quality Standards

Note: ppm = part per million. ppb = part per billion.  $NO_2 = nitrogen dioxide$ .

\*National and Virginia short-term ambient standards may be exceeded once per year; annual standards may never be exceeded. Ozone standard is attained when the expected number of days of an exceedance is equal to or less than one.

<sup>†</sup>Standards expressed in micrograms per cubic meter (µg/m<sup>3</sup>) unless otherwise noted.

<sup>‡</sup>Final rule signed June 2, 2010. The 1971 annual and 24-hour SO<sub>2</sub> standards were revoked in this rulemaking. However, these standards remain in effect until one year after an area is designated for the 2010 standard, except in areas designated nonattainment for the 1971 standards, where the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standard are approved.

SNo ambient standard for this pollutant and/or averaging period.

£The rule signed October 15, 2008, finalized a new lead standard. The 1978 lead standard of 1.5 μg/m<sup>3</sup> as a quarterly average remains in effect until one year after an area is designated for the 2008 standard, except in areas designated nonattainment for the 1978 standard, where the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

Sources: 40 CFR 50. 9 VAC 5-30.



The 1990 CAA Amendments called for a review of the ambient air quality of all regions of the United States. By March 15, 1991, states were required to file with EPA recommended designations of all areas as either attainment, nonattainment, or unclassifiable. Areas of the country that had monitored air quality levels equal to or better than these standards (i.e., ambient concentrations less than a standard) as of March 15, 1991, became designated as attainment areas, while those areas where monitoring data indicated air quality concentrations greater than the standards became known as nonattainment areas.

The designation of unclassifiable indicates there is insufficient monitoring data to determine if the area has attained the federal standards; however, the limited data available indicates the standard has been achieved. Areas with this classification are treated by EPA as attainment areas for permitting purposes.

Table 4-2 lists the current federal air quality classifications for each criteria pollutant for the project area in Chesterfield County. The designation of an area has particular importance for a proposed project as it is a factor that, in part, determines whether a pollutant is subject to PSD review or nonattainment new source review (NNSR). However, EPA has confirmed that NAAQS implementation is a requirement imposed on States in the SIP; it is not imposed directly on a source. *Operating Permit Program*, 57 Fed. Reg. 32250, 32276 (July 21, 1992); *see also In the Matter of Duke Energy, LLC, Roxboro Steam Electric Plant*, Permit No. 01001T49, Petition No. IV-2016-07 (EPA Adm'r, June 30, 2017) ("A source is not obligated to reduce emissions as a result of the [NAAQS] until the state identifies a specific emission reduction measure needed for attainment (and applicable to the source), and that measure is incorporated into a SIP approved by [the] EPA.").



Pollutant	Attainment Status
CO NO2 PM2.5 PM10 SO2 Ozone (8-hour) Lead	Unclassifiable/attainment Unclassifiable/attainment Unclassifiable/attainment Unclassifiable/attainment Unclassifiable/attainment Unclassifiable/attainment

## Table 4-2. Classification of Chesterfield County, Virginia, for Each Criteria Pollutant

Note: CO = carbon monoxide. NO<sub>2</sub> = nitrogen dioxide.

 $PM_{2.5}$  = particulate matter less than or equal to 2.5 micrometers.

 $PM_{10}$  = particulate matter less than or equal to 10 micrometers.

 $SO_2$  = sulfur dioxide.

Source: 40 CFR 81.347.

Major new sources or major modifications to existing major sources located in attainment or unclassifiable areas are required to obtain a PSD permit prior to beginning actual construction. Similarly, sources located in areas designated as nonattainment or that adversely impact such areas are required to undergo permitting under the provisions of the nonattainment new source review (NNSR) program. In either case, it is necessary, as a first step, to determine the air quality classification of a project site. For the proposed project, only PSD review is potentially applicable, because the attainment status for Chesterfield County is unclassifiable/attainment for all regulated pollutants.

## 4.2 PSD Program

## 4.2.1 PSD Applicability

The determination of whether PSD regulations are applicable to a specific project must be conducted in two parts: first identifying the air quality status of the location of the project, and second, evaluating the type and quantity of PSD-regulated pollutants that will be emitted. Because the facility is located in Chesterfield County, which is designated as attainment or unclassifiable for the criteria pollutants, PSD review will apply as discussed in the following paragraphs.



CPS is considered an existing major stationary source under the PSD regulations. A major modification is defined as any physical change or change in the method of operation of a major stationary source that would result in (1) a significant emission increase of a regulated NSR pollutant, and (2) a significant net emission increase of that pollutant from the major stationary source. The relevant PSD significant emission rates are summarized in Table 4-3. As discussed in Section 3.5 and presented in Table 3-8, the proposed CERC project will result in both a significant emission increase for CO, VOC, PM<sub>2.5</sub> and GHGs, and the project is subject to PSD as a major modification for these pollutants.

## Table 4-3. PSD SERs

Pollutant	SER (tpy)				
	100				
CO	100				
NO <sub>x</sub>	40				
SO <sub>2</sub>	40				
PM	25				
PM <sub>10</sub>	15				
PM <sub>2.5</sub>	10				
Ozone	40 of VOCs or NO <sub>x</sub>				
Lead	0.6				
Fluorides	3				
H <sub>2</sub> SO <sub>4</sub> mist	7				
Total reduced sulfur	10				
Reduced sulfur compounds	10				
Hydrogen sulfide	10				
GHG (expressed as CO₂e)	75,000				

Source: 9 VAC 5-80-1615.C and 9 VAC 5-85-50.

## 4.2.2 PSD Program Requirements

The following provides a summary of the application requirements for projects subject to PSD. Virginia issues PSD permits pursuant to its SIP-approved PSD program found in 9 VAC 5-80-1600 *et seq*. (Article 8) for criteria pollutants and 9 VAC 5-85 for GHG pollutants.

## 4.2.2.1 Best Available Control Technology

The requirements for BACT were promulgated within the framework of PSD in the 1977 CAA Amendments. Guidelines for the evaluation of BACT in Virginia can be found in APG-309, Air



Permitting Guidelines New and Modified PSD Sources (Draft, Nov. 2, 2015) which references EPA's PSD/New Source Review Workshop Manual (EPA, 1990 DRAFT). In addition, APG-309 references EPA's guidance on the evaluation of the estimated cost associated with various control options, Air Pollution Control Cost Manual (EPA, 2002). Although not solely focused on BACT, the information provided in the Control Cost Manual can be used to help evaluate cost-effectiveness in deciding which control option to select as the basis for a BACT determination. EPA's specific guidance on BACT for GHG emissions (https://www.epa.gov/nsr/clean-air-act-permitting-greenhouse-gases) was also considered.

The regulatory definition of BACT for PSD affected sources locating in Virginia is:

"[A]n emissions limitation (including a visible emissions standard) based on the maximum degree of reduction for each regulated NSR [new source review] pollutant that would be emitted from any proposed major stationary source or major modification that the board, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant. In no event shall application of best available control technology result in emissions of any pollutant that would exceed the emissions allowed by any applicable standard under 40 CFR Parts 60, 61, and 63. If the board determines that technological or economic limitations on the application of measurement methodology to a particular emissions unit would make the imposition of an emissions standard infeasible, a design, equipment, work practice, operational standard, or combination thereof, may be prescribed instead to satisfy the requirement for the application of best available control technology. Such standard shall, to the degree possible, set forth the emissions reduction achievable by implementation of such design, equipment, work practice or operation, and shall provide for compliance by means that achieve equivalent results." (9 VAC 5-80-1615.C.)

Although BACT is typically an emissions limit, BACT can also be a work practice standard in certain circumstances, if an emissions limit is not feasible. One example of a work practice standard that can impact a BACT determination is a limitation on the hours of operation for a source. Another example is the requirement to install and operate a particular emission control device in lieu of an emissions limit. BACT limits are determined by the permitting authority based on a case-by-case analysis that takes into account site-specific characteristics, including "energy, environmental, and economic costs and other costs" (9 VAC 5-80-1615.C). BACT does not require an applicant to consider control alternatives that would redefine the proposed source by fundamentally redesigning it. *Utility Air Regulatory Group v.* EPA, 134 S.Ct. 2427, 2448 (2014); APG-309 at 4-1 (acknowledging EPA's historic interpretation that BACT is not a means to redefine the source proposed by the



applicant). *See also Va. Chapter of the Sierra Club v. Va. State Air Pollution Control Bd.*, No. CL 16-3770 (Va. Cir. Ct. City of Richmond, July 28, 2017) (upholding that BACT under the Virginia regulations does not require considering alternatives that would redefine the source).

A BACT limit must be achievable. Generally, achievable in the context of BACT means an emissions limit that the source can meet on a continual basis over the relevant averaging period for the lifetime of the facility. BACT limits should be set at levels the source can meet under reasonably foreseeable worst-case conditions. A permitting authority determines what is achievable for a source, exercising its technical judgment on a case-by-case basis.

In addition to the BACT limit being achievable, a control technology must be available to be considered in a BACT determination. To be available, a control technology must be demonstrated in practice. This means the technology has progressed beyond the conceptual stage and beyond research and development or the pilot testing phase. The technology must have been demonstrated successfully on full-scale operations for a sufficient time to be considered proven. BACT does not require an applicant to employ technologies not demonstrated in practice; theoretical, experimental, or developing technologies are not available under BACT. Technologies with questionable or dubious reliability are likewise not considered available under BACT, and the applicant is not required to use them.

Finally, BACT is determined on a pollutant-by-pollutant basis. When establishing BACT for individual pollutants, however, a permitting authority must also consider possible interactions among the pollutants as well as other collateral environmental impacts of particular technologies, such as water usage or the creation of a waste stream. Section 5.0 presents BACT analyses for the project.

## 4.2.2.2 Air Quality Monitoring Requirements

In accordance with requirements of 9 VAC 5-80-1735, a PSD application must contain an analysis of existing ambient air quality in the area to be affected by the proposed project if the project would result in a significant net emissions increase. The analysis of existing air quality can be air monitoring data from either a state-operated or private network, or by a preconstruction monitoring program specifically designed to collect data in the vicinity of the proposed source. Dominion is proposing to use existing air monitoring data.



#### 4.2.2.3 Source Impact Analysis

A source impact analysis must be performed for a proposed project subject to PSD review for each pollutant for which the increase in emissions exceeds the SER to demonstrate the project will not cause or contribute to a violation of NAAQS or PSD increment. The PSD regulations specifically provide for the use of atmospheric dispersion modeling in performing impact analyses, estimating baseline and future air quality levels, and demonstrating that a project will not cause or contribute to an exceedance of NAAQS and allowable PSD increments, as noted in 9 VAC 5-80-1725 (referencing 40 CFR 51, Appendix W). Use of other than EPA-approved models require written approval and opportunity for public notice and comment prior to use. Guidance for the use and application of dispersion models is presented in the EPA publication Guideline on Air Quality Models (EPA, 2017) and the TCEQ Air Quality Modeling Guidelines (November 2019). The source impact analysis for criteria pollutants may be limited to only the new or modified sources if the impact due to the new or modified sources is below the significant impact levels (SILs) presented in Table 4-4.

## 4.2.2.4 <u>PSD Increments</u>

PSD regulations specify that new major sources or modifications to existing major sources may change baseline air quality only by a defined amount. This limited incremental degradation is known as a PSD increment. PSD increments have been established for Class I and Class II areas for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, and nitrogen dioxide (NO<sub>2</sub>) (see Table 4-4).

The allowable change, or increment, is dependent on the classification of the area in which the action is to take place. When PSD regulations were first promulgated, three area classifications were proposed based on criteria set in the 1977 CAA.

Class I areas are federally protected and include specifically defined national parks, national forests, and wilderness areas. Class III increments are the least restrictive of the three PSD Classes; however, to date, no Class III areas have been officially designated. The remainder (and vast majority) of the country is designated as a Class II area, including Chesterfield County.



	Averaging	PSD Inc	rements	SI	Ls	
Pollutant	Time	Class I	Class II	Class I*	Class II	NAAQS
PM <sub>10</sub>	Annual arithmetic mean†	4	17	0.2	1	NA
	24-Hour maximum‡	8	30	0.3	5	150
PM <sub>2.5</sub> §	Annual arithmetic mean†	1	4	0.06	0.2	12
	24-Hour maximum‡	2	9	0.07	1.2	35
SO <sub>2</sub>	Annual arithmetic mean†	2	20	0.1	1	80
	24-Hour maximum‡	5	91	0.2	5	365
	3-Hour maximum‡	25	512	1	25	1,300
	1-Hour maximum£	NA	NA	NA	7.9	196
CO	8-Hour maximum	NA	NA	NA	500	10,000
	1-Hour maximum	NA	NA	NA	2,000	40,000
$NO_2$	Annual arithmetic mean†	2.5	25	0.1	1	100
	1-Hour maximum£	NA	NA	NA	7.5	188

## Table 4-4. Allowable PSD Increments, SILs, and NAAQS

Note: CO = carbon monoxide.

- NA = not applicable, i.e., no increment exists.
- $NO_2$  = nitrogen dioxide.
- PM<sub>2.5</sub> = particulate matter less than or equal to 2.5 micrometers.
- $PM_{10}$  = particulate matter less than or equal to 10 micrometers.
- $SO_2$  = sulfur dioxide.

\*Class I SILs were proposed in Federal Register July 23, 1996.

†PSD increment not to be exceeded.

‡PSD increment not to be exceeded more than once per year.

£While there are no EPA promulgated SILs for the 1-hour SO<sub>2</sub> and NO<sub>2</sub> NAAQS, interim values have been provided.

§SILs for PM<sub>2.5</sub> exist for the purpose of determining if a source has a significant contribution to a modeled violation. The SILs do not exist for the purpose of avoiding a cumulative impact analysis. PM<sub>2.5</sub> SILs are based on EPA's April 17, 2018, "Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program."

Source: ECT, 2023.

## 4.2.2.5 <u>Additional Analyses</u>

In addition to the standard air quality analyses, federal regulations require an analysis of the

impairment to visibility and the effects on soils and vegetation that would occur as a result of project



construction and operation. Impacts due to commercial, residential, industrial, and other growth in the vicinity of the project also must be addressed to the extent they are a result of the proposed action. This additional analysis is provided in Section 8.0 of this application.

#### 4.2.2.6 Class I Analyses

PSD regulations require that facilities that may affect a PSD Class I area perform a modeling evaluation of the ambient air quality in terms of Class I PSD Increments and Air Quality Related Values (AQRVs). The Class I analysis will be provided under separate cover.

## 4.2.2.7 <u>Site Suitability and Environmental Justice Analysis</u>

Under Virginia's PSD regulations, an analysis of the suitability of the site for the project, including environmental justice considerations, is required per 9 VAC 5-80-1665 to comply with Va. Code § 10.1-1307 E. See Section 10.

## 4.3 Good Engineering Stack Height Analysis

The 1977 CAA requires the degree of emissions limitation required for control of any pollutant not be affected by a stack which exceeds the GEP height. Further, no dispersion credit is given during air quality modeling for stacks that exceed GEP. GEP stack height is defined as the highest of one of these three metrics:

- 65 meters.
- A height established by applying the formula: HGEP = H + 1.5 L:

where: HGEP = GEP stack height.

H = height of the structure or nearby structure.

- L = lesser dimension (height or projected width) of the nearby structure.
- A height demonstrated by fluid modeling or field study.

A structure or terrain feature is considered nearby if a stack is within a distance of five times the structure's height or maximum projected width. Only the smaller value of the height or projected width is used, and the distance to the structure cannot be greater than 0.8 kilometer (EPA, 1985). Although GEP stack height regulations require the stack height used in modeling for determining



compliance with NAAQS and PSD increments not exceed GEP stack height, the actual stack height may be greater.

The stack height regulations also increase GEP stack height beyond that resulting from the formula in cases where plume impaction occurs. Plume impaction is defined as concentrations measured or modeled to occur when the plume interacts with elevated terrain. Elevated terrain is defined as terrain that exceeds the height calculated by the GEP stack height formula. Based on two criteria cited in a July 8, 1985, Federal Register (FR) preamble to the stack height rules discussing the role of terrain in influencing the emitted plume at the source location, there is no significant terrain that would induce downwash within 0.5 kilometer and at least a 10-percent terrain height relative to the distance from the source. Therefore, plume impaction was not considered in determining the GEP stack height for the proposed project.

Stacks to be constructed at the project site will each be less than or equal to 65 meters and modeled at their actual stack elevation. Therefore, the modeling complies with GEP regulations.

## 4.4 Applicability of NSPS

The following NSPS regulations are potentially applicable to this project:

- Subpart A, General Provisions.
- Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.
- Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels.
- Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.
- Subpart KKKK, Standards of Performance for Stationary CTs.
- Subpart TTTT / Subpart TTTTa, Standards of Performance for GHG Emissions from New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units.

Each of these potentially applicable subparts is discussed further in the following subsections.

## 4.4.1 Subpart A, General Provisions

Certain provisions of 40 CFR 60, Subpart A, apply to the owner or operator of any stationary source subject to NSPS. Because the proposed facility will be subject to NSPS, the proposed project will be



required to comply with applicable provisions of Subpart A. Table 4-5 identifies Subpart A provisions that impose requirements on the proposed project.

40 CFR 60 Subpart A Section	Requirement	Compliance Action
60.7	Initial notification and recordkeeping	Submit NSPS-related notifications to EPA Region III and VDEQ for the proposed project in a timely manner.
60.8	Performance tests	Conduct required performance tests using designated reference test methods.
60.11	Compliance with standards and maintenance requirements	Operate and maintain the units using good air pollution control practices.
60.13	Monitoring requirements	Use pollutant monitoring methods outlined in 40 CFR 60.13.
60.19	General notification and reporting requirements	Follow NSPS report and notification formats and schedules set forth in 40 CFR 60.19.

## Table 4-5. Summary of Relevant Regulatory Requirements of NSPS Subpart A, General Provisions

Source: ECT, 2023.

# 4.4.2 Subpart Dc, Standards of Performance for Small Industrial-Commercial- Institutional Steam Generating Units

NSPS Subpart Dc applies to steam generating units that commenced construction after June 9, 1989, and have a maximum design heat input capacity between 10 and 100 MMBtu/hr. The proposed 18.8 MMBtu/hr fuel gas heater will be subject to this subpart, since it is a water bath-type heater and with a heat input capacity greater than 10 MMBtu/hr. Although the 18.8-MMBtu/hr fuel gas heater is subject to Subpart Dc, PM and SO<sub>2</sub> emissions standards under Subpart Dc are not applicable, because the heater will only burn natural gas. Subpart Dc does not include NO<sub>x</sub> emissions standards, but some monitoring, recordkeeping, and reporting requirements will still apply to the fuel gas heater.



# 4.4.3 Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels

The proposed project will include a new 12 million gallon fuel oil storage tank to store fuel oil for the SCCTs. Additionally, the proposed project will include new, smaller fuel oil storage tanks for the six diesel-fired emergency generators and the emergency firewater pump.

NSPS Subpart Kb regulates storage vessels with a capacity greater than 75 cubic meters (m<sup>3</sup>) (19,813 gallons) that are used to store volatile organic liquids for which construction, reconstruction, or modification is commenced after July 23, 1984. Subpart Kb does not apply to storage vessels with a capacity greater than or equal to 151 m<sup>3</sup> (40,000 gallons) storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) or with a capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure less than 15.0 kPa.

Subpart Kb does not apply to the proposed storage tanks used for the emergency engines because the capacity of those tanks is less than 75 cubic meters. In addition, Subpart Kb does not apply to the 12 million gallon fuel oil storage tank because the maximum true vapor pressure of diesel oil is less than 3.5 kilopascals (kPa).

# 4.4.4 Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

The six diesel-fired emergency generators and diesel-fired firewater pump are subject to 40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, including applicable Subpart IIII emissions limitation, monitoring, recordkeeping, and reporting requirements. The proposed engines will each be certified by the manufacturer to comply with the applicable emissions limitations. The engines will fire only fuel oil and will each be equipped with a non-resettable hour meter. The facility will log the date, start time, end time, and reason for each time of engine operation. The facility will operate and maintain the engines in accordance with the manufacturer's emission-related instructions.

# 4.4.5 Subpart KKKK, Standards of Performance for Stationary CTs

Subpart KKKK, Standards of Performance for Stationary Combustion Turbines, applies to  $NO_x$  and  $SO_2$  emissions from each stationary combustion turbine generator with a heat input at peak load equal to or greater than 10 MMBtu/hr HHV, which commenced construction, modification, or



reconstruction after February 18, 2005. Construction of the proposed combustion turbines will commence after February 2005, and the peak load heat input rate of each of the SCCTs at ISO conditions is 2,445 MMBtu/hr when firing natural gas; 2,452 MMBtu/hr when firing fuel oil. Therefore, the proposed combustion turbines are subject to the NO<sub>x</sub> and SO<sub>2</sub> emissions limits and other applicable requirements in NSPS Subpart KKKK.

## 4.4.5.1 <u>Emissions Limits for NO<sub>x</sub></u>

Under Subpart KKKK, the proposed combustion turbines are subject to an emissions standard of 15 ppm at 15-percent oxygen gas (O<sub>2</sub>) or 0.43 pound per megawatt-hour (lb/MWh) when fired with natural gas and 42 ppm at 15-percent O<sub>2</sub> or 1.3 lb/MWh when fired with fuel oil. Since the proposed H2 fuel blend is >50% natural gas, the 15 ppm at 15-percent O<sub>2</sub> natural gas limit applies. If the combustion turbines operate in partial load (less than 75 percent of peak load) or at temperatures less than 0°F, a NO<sub>x</sub> limit of 96 ppm at 15-percent O<sub>2</sub> or 4.7 lb/MWh will apply. Compliance is based on the arithmetic average of hourly applicable NO<sub>x</sub> emissions based on a 4-hour rolling average.

As discussed in the BACT analysis in Section 5.0, the proposed SCCTs will reduce NO<sub>x</sub> emissions to 2.5 ppmvd at 15-percent O<sub>2</sub> using low-NO<sub>x</sub> combustors and SCR when operating on natural gas, to 2.5 ppmvd at 15-percent O<sub>2</sub> using low-NO<sub>x</sub> combustors and SCR when operating on H<sub>2</sub> fuel blend and to 5 ppmvd at 15-percent O<sub>2</sub> using water injection and SCR when operating on fuel oil. Therefore, compliance with the proposed BACT emission limits will demonstrate compliance with the Subpart KKKK NO<sub>x</sub> emissions limits. In addition, the CT vendor data concerning expected emission rates during startup and shutdown events, limiting the time spent in startup or shutdown, and the proposed BACT emission limits during startup and shutdown. Compliance with these emissions standards will be verified based on continuous emissions monitoring system (CEMS) data. In accordance with §60.4310, the Subpart KKKK NO<sub>x</sub> emission limits do not apply during emergency turbine operations such as Black Start conditions.

## 4.4.5.2 Emissions Limits for SO<sub>2</sub>

Under Subpart KKKK, the proposed combustion turbines will be subject to an SO<sub>2</sub> emissions limit of 0.90 lb/MWh gross output or, in the alternative, the combustion turbines must not burn any fuel that contains the total potential sulfur emissions in excess of 0.060 lb SO<sub>2</sub>/MMBtu heat input. Dominion will comply with the input-based emissions standard for SO<sub>2</sub>. The proposed combustion



turbines will burn natural gas with a sulfur content of 0.4 gr/100 dscf on an annual basis and fuel oil with a sulfur content of 0.0015 percent by weight; therefore, the potential sulfur emissions will not exceed 0.06 lb SO<sub>2</sub>/MMBtu heat input. As allowed under §60.4365, Dominion will demonstrate compliance with the Subpart KKKK SO<sub>2</sub> limits through documentation provided on the "fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel." As such, no fuel monitoring will be required for total sulfur content.

# 4.4.6 Subpart TTTT, Standards of Performance for GHG Emissions from New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units

NSPS Subpart TTTT was promulgated in October 2015 and is applicable to fossil fuel-fired power plants that commence construction on or after January 8, 2014; therefore, Subpart TTTT is applicable to the project. Please note that an updated version of the regulation, NSPS Subpart TTTTa, was proposed on May 23, 2023. The updated regulation is expected to apply to the proposed SCCTs; however, the final provisions of Subpart TTTTa will not be available until the rule development process is complete. Therefore, our discussion of requirements will focus on the current regulation, Subpart TTTT. Dominion will modify their compliance approach as the revised rule becomes final, in accordance with the timeline provided in the regulation.

NSPS Subpart TTTT established three subcategories of combustion turbines: (1) base load natural gas-fired units, (2) non-base load natural gas-fired units, and (3) multi-fuel-fired units. A base load natural gas-fired unit is any unit that: (1) combusts more than 90 percent natural gas on a heat input basis on a 12-operating-month rolling average basis and (2) supplies more than its design efficiency or 50 percent, whichever is less, times its potential electric output as net-electric sales on both a 12-operating-month and a three-year rolling average basis. The base load natural gas-fired unit standard of performance is 1,000 pound of carbon dioxide per megawatt-hour (lb CO<sub>2</sub>/MWh) gross or 1,030 lb CO<sub>2</sub>/MWh net on a 12-operating-month rolling average. A non-base load natural gas-fired unit is any unit that: (1) combusts more than 90 percent natural gas on a heat input basis on a 12-operating-month rolling average basis, and (2) supplies its design efficiency or 50 percent, whichever is less, times than 90 percent natural gas on a heat input basis on a 12-operating-month rolling average basis. The non-base load natural gas-fired unit standard of performance is 12-operating basis. The non-base load natural gas-fired unit standard of performance is 120 lb CO<sub>2</sub>/MMBtu of heat input. A multi-fuel-fired unit is any unit that combusts 90 percent or less



natural gas on a heat input basis on a 12-operating-month rolling average basis. The multi-fuel-fired unit standard of performance is 120 to 160 lb CO<sub>2</sub>/MMBtu of heat input.

The proposed SCCTs are categorized as a non-base load multi-fuel-fired unit. The SCCTs will have a design efficiency of 50% or less and will comply with the applicable standard of performance, and applicable monitoring and reporting requirements of the NSPS Subpart TTTT.

# 4.5 Applicability of 40 CFR 61, NESHAP

The proposed project is not subject to any of the 40 CFR 61 NESHAP.

# 4.6 Applicability of 40 CFR 63, NESHAP

In general, the applicability of 40 CFR 63 NESHAP typically depends on whether a facility is a major HAP source (i.e., potential emissions of an individual HAP of 10 tpy or more and potential emissions of total HAPs of 25 tpy or more). 40 CFR 63, Maximum Achievable Control Technology (MACT) standards have been promulgated for major sources and, in a few cases, for area sources. Potential HAP emissions from the entire stationary source (CERC and CPS) will be greater than the major source thresholds for single and combined HAPs. Therefore, the facility will be considered a major source of HAP emissions.

# 4.6.1 Subpart YYYY, NESHAP for Stationary CTs

The CT MACT standard (40 CFR 63 Subpart YYYY) applies to stationary CTs located at major HAP sources. The proposed SCCTs are categorized as lean premix gas-fired stationary combustion turbines or diffusion flame gas-fired stationary combustion turbines with startup after March 9, 2022. Under Subpart YYYY, each SCCT is required to limit the concentration of formaldehyde to 91 ppbvd or less at 15-percent O<sub>2</sub>, except during startup. Each turbine is also required to maintain the 4-hour rolling average of oxidation catalyst inlet temperature within the range suggested by the catalyst manufacturer. The proposed turbines will utilize oxidation catalysts to comply with the formaldehyde limit, as well as applicable monitoring and reporting requirements in Subpart YYYY.



# 4.6.2 Subpart ZZZZ, NESHAP for Stationary Reciprocating Internal Combustion Engines

The six emergency generators and firewater pump engine are subject to Subpart ZZZZ and will meet applicable requirements based on their engine type, engine size and the fact that they are considered emergency stationary RICE. The emergency generators and emergency firewater pump will be limited to 100 hr/yr of non-emergency operation including maintenance checks and readiness testing. The only requirement under Subpart ZZZZ for the emergency firewater pump engine is to maintain compliance with the requirements of 40 CFR Part 60 Subpart IIII. The six emergency generators have to meet only the emergency engine definition and initial notification requirements of Subpart ZZZZ, since they are new, emergency engines, greater than 500 hp located at a major source of HAPs and are not contractually obligated to be available for more than 15 hours per calendar year for emergency demand response or when there is a deviation in voltage or frequency of five percent or greater below standard voltage or frequency. The emergency generator engines will also meet applicable NSPS Subpart IIII requirements as described in Section 4.4.4.

# 4.6.3 Subpart DDDDD, NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters

NESHAP Subpart DDDDD applies to boilers and process heaters constructed after June 4, 2010 and located at major HAP emissions sources. A process heater is defined as an enclosed device using a controlled flame, and the unit's primary purpose is to transfer heat indirectly to process material or to a heat transfer medium, including water, for use in a process unit instead of generating steam. The fuel gas heater is a water bath-type heater and is considered a process heater under this NESHAP. Therefore, the fuel gas heater will be subject to NESHAP Subpart DDDDD. New, natural gas-fired units with a rated heat input of 10 MMBtu or greater are required to conduct an annual tune-up. No other operating limits or emission limits apply.

# 4.6.4 Subpart JJJJJJ, NESHAP for Industrial, Commercial, and Institutional Boilers Area Sources

NESHAP Subpart JJJJJJ only applies to boilers located at area sources. Since, CPS is a major source of HAPs, NESHAP JJJJJJ does not apply.



## 4.7 <u>Title IV, Acid Rain Provisions</u>

The proposed combustion turbines are fossil fuel-fired combustion devices used to generate electricity for sale, and their capacity serves a generator that exceeds 25 MW. Therefore, the proposed combustion turbines meet the definition of an affected Phase II unit under EPA's ARP pursuant to Title IV of the 1990 CAA Amendments. As a result, the facility must:

- Apply for a Phase II acid rain permit to include the new utility units.
- Install CEMS to demonstrate compliance with ARP provisions, meeting the requirements specified in 40 CFR 75.
- Hold allowances equivalent to annual NO<sub>x</sub> and SO<sub>2</sub> emissions.

An acid rain permit application must include the date the units will commence commercial operation and the deadline for monitoring certification (180 calendar days). Dominion will submit an acid rain permit application at least 24 months prior to the start of operation and operate in compliance with applicable provisions of Title IV acid rain rules as adopted by reference under 9 VAC 5-80-360. The facility also will meet applicable acid rain requirements that become effective after the issuance of an acid rain permit.

The facility will develop a Title IV acid rain monitoring plan as required under 40 CFR 72. The plan will include the details of continuous monitoring systems, approved alternative monitoring provisions, or exemptions allowed under 40 CFR 75 for NO<sub>x</sub>, SO<sub>2</sub>, CO<sub>2</sub>, and opacity. For the monitoring technology selected at the time of installation, the plan will cite the specific operating practices and maintenance programs that will be applied to the instrument(s). The plan also will cite the specific form of records that will be maintained, their availability for inspection, and the length of time they will be archived. The plan will indicate that the acid rain permit and applicable regulations will be reviewed at specific intervals for continued compliance and will cite the specific mechanism to be used to keep current on rule applicability.

## 4.8 <u>RMP, Section 112(r)</u>

Title III of the 1990 CAA Amendments contains requirements for subject facilities that store and/or process certain hazardous substances. Under these requirements, facilities must identify and assess potential hazards and carry out certain activities designed to reduce the likelihood and severity of



accidental chemical releases. Section 112(r) of the CAA, codified in 40 CFR 68, mandates EPA publish rules to develop and implement RMPs for sources with more than the threshold quantity of a listed regulated substance to identify, prevent, and minimize the consequences of accidental releases.

The facility modification is a separate process from the existing CPS for Section 112(r) purposes and will not store substances in quantities greater than the associated threshold quantity (facility using 19% aqueous ammonia); therefore the CERC project will not be subject to the requirements of RMP regulations adopted under Section 112(r).

## 4.9 Applicability of Title V, Major Source Operating Permit

The state of Virginia has been delegated authority to implement the major source operating permit program (Title V) in accordance with the requirements of 40 CFR 70 and Title V of the 1990 CAA Amendments. The operating permit regulations are contained in 9 VAC 5-80, Part II, Article 1, and the minimum requirements for operating permit application contents are provided in 9 VAC 5-80-80.

Since 9 VAC 5-80-50 requires major sources (i.e., criteria pollutant emissions levels above 100 tpy) to obtain a Title V permit, Dominion will submit a Title V operating permit revision application to the state of Virginia within 12 months of first fire of the new units.

## 4.10 Cross-State Air Pollution Rule

On July 6, 2011, EPA promulgated the CSAPR to replace the Clean Air Interstate Rule (CAIR). CSAPR requires states to improve air quality by reducing power plant emissions that contribute to ozone and/or fine particle pollution in other states. Based on the outcome of a series of court decisions regarding CSAPR, Phase I of CSAPR began in 2015, and any units subject to the rule must comply with applicable requirements. EPA promulgated the Federal "Good Neighbor Plan" for the 2015 Ozone National Ambient Air Quality Standards to further address cross state air pollution on June 5, 2023, with an effective date of August 4, 2023. The facility will comply with the permitting, monitoring, recordkeeping, and reporting requirements set forth by the CSAPR and the "Good Neighbor Plan", including the installation and certification of a CEMS.



## 4.11 Mandatory Greenhouse Gas Reporting

The Mandatory GHG Reporting Rule requires facilities that emit greater than 25,000 metric tpy of CO<sub>2</sub>e to report their GHG emissions. As the proposed facility will exceed this threshold, reporting GHG emissions for the combustion turbines under 40 CFR 98 will be required. The requirements for the electricity generation category are outlined in Subpart D of 40 CFR 98. CPS will comply with these reporting requirements under 40 CFR 98.

The circuit breakers are not subject to GHG reporting under 40 CFR Part 98 Subpart DD. The definition of the source category, Electrical Transmission and Distribution Equipment Use, is

The electrical transmission and distribution equipment use source category consists of all electric transmission and distribution equipment and servicing inventory insulated with or containing sulfur hexafluoride (SF<sub>6</sub>) or perfluorocarbons (PFCs) used within an electric power system.

40 CFR 98.308, Definitions, provides a definition of Facility with respect to an electric power system and states:

An electric power system is comprised of all electric transmission and distribution equipment insulated with or containing SF<sub>6</sub> or PFCs that is linked through electric power transmission or distribution lines and functions as an integrated unit, that is owned, serviced, or maintained by a single electric power transmission or distribution entity (or multiple entities with a common owner), and that is located between: (1) The point(s) at which electric energy is obtained from an electricity generating unit or a different electric power transmission or distribution entity that does not have a common owner, and (2) the point(s) at which any customer or another electric power transmission or distribution entity that does not have a common owner receives the electric energy. The facility also includes servicing inventory for such equipment that contains SF<sub>6</sub> or PFCs.

Therefore, the SF<sub>6</sub> circuit breakers at CPS are not subject to 40 CFR Part 98 Subpart DD since the circuit breakers are located on a power generation facility and not an electrical transmission and distribution facility. In addition, the total quantity of SF<sub>6</sub> contained in the proposed circuit breakers (1,792 pounds) is less than the reporting threshold of 17,820 pounds as stated in 40 CFR 98.301.



## 4.12 State Regulatory Review

In general, VDEQ retains jurisdiction within Chesterfield County with SIP-approval and full delegation from EPA to enforce the air quality programs under the CAA. The emissions sources presented in this document will comply with applicable Virginia State Air Pollution Control Board regulations promulgated under Title 9 of the Virginia Administrative Code. This section lists the citations of the applicable state regulations with regulatory requirements.

#### 9 VAC 5-20, General Provisions

The facility will comply with the general provisions as outlined in 9 VAC 5-20.

#### 9 VAC 5-50-20, Compliance

Sixty days after achieving the maximum production rate, but not later than 180 days after initial startup, the facility must not operate any new source in violation of any standard of performance under this regulation. The facility will comply with this regulation.

#### 9 VAC 5-50-30, Performance Testing

This regulation describes performance testing procedures for new or modified sources. The facility will conduct performance testing in accordance with these regulations.

#### 9 VAC 5-50-40, Monitoring

This regulation applies to a CEMS. The facility will comply with these regulations, as appropriate, for CEMS located onsite.

## 9 VAC 5-50-50, Notification, Records, and Reporting

This regulation outlines the notification, recordkeeping, and reporting requirements for new sources. The facility will comply with these regulations.

## <u>9 VAC 5-50-260, Standard for Stationary Sources, and 9VAC5-50-280, Standard for Major</u> <u>Stationary Sources (PSD areas) --w</u>

These regulations require a BACT analysis if certain thresholds are exceeded. A BACT analysis has been conducted for the project and is presented in Section 5.0.



#### 9 VAC 5, Chapter 60, Standards for Air Toxics

This regulation describes the requirements for toxic pollutants that are emitted by a stationary source subject to emissions standards prescribed by the chapter. As addressed above, the Project combustion sources are all subject to NESHAP and thus exempt from the requirements of 9 VAC 5-60-300 *et seq.* by 9 VAC 5-60-300 C.4, while the remaining sources are below the applicable emission rate thresholds in 9 VAC 5-60-300 C.1. Although 9 VAC 5-60-300 *et seq.* is not applicable, Sections 6.0 and 7.0 provide a dispersion modeling analysis demonstrating compliance with the Virginia significant ambient air concentrations (SAAC) listed in 9 VAC 5-60-330.

#### 9 VAC 5-80-420, Standard Requirements

This regulation describes the information needed and limitations for facilities subject to EPA's ARP. The proposed facility will comply with this regulation.

#### 9 VAC 5-80-1105, Virginia Minor NSR Program

Virginia has established permitting requirements for projects that do not result in significant increases in emissions but do result in an increase above the applicable permit exemption thresholds shown in Table 4-6. An analysis of the uncontrolled emissions resulting from the project must be conducted to determine whether Virginia's minor NSR permitting program is triggered. Section 3.5 provides the methodology and summary of the uncontrolled emission rates for those regulated pollutants not subject to PSD applicability and PSD review. Based on that analysis and as shown in Table 3-8, the project is subject to Virginia's minor NSR permitting program for NO<sub>x</sub>, PM, PM<sub>10</sub>, SO<sub>2</sub>, and H<sub>2</sub>SO<sub>4</sub>. Section 5.0 presents the necessary state-level BACT analysis for these pollutants.

The project does not trigger Virginia's minor NSR permitting program for lead.

## 9 VAC 5-80-1180, Standards and Conditions for Granting Permits

This regulation outlines the standards required for facilities for which a permit is granted. The proposed facility will comply with standards and conditions listed in the regulation.

## 9 VAC 5-80-1210, Permit Invalidation, Suspension, Revocation, and Enforcement

This regulation describes the conditions in which a permit may be invalidated, suspended, or revoked or an enforcement action may be brought upon the facility.



Pollutant	Minor NSR Threshold (tpy)
CO	100
NO <sub>x</sub>	10
SO <sub>2</sub>	10
PM	15
PM <sub>10</sub>	10
PM <sub>2.5</sub>	6
VOC	10
Lead	0.6
H <sub>2</sub> SO <sub>4</sub>	6

## Table 4-6. Virginia Project Minor NSR Thresholds

Source: 9 VAC 5-80-1105.D.1.

# <u>9 VAC 5-80-1605 through 1995, Permits for Major Stationary Sources and Major Modifications</u> Locating in PSD Areas

These regulations apply to the construction of a new major stationary source of a major modification at an existing major stationary source. The proposed facility is considered a major modification at an existing major stationary source and will comply with applicable standards and conditions listed in these regulations, including site suitability and environmental justice considerations, consistent with the Virginia Environmental Justice Act and the Commonwealth Energy Policy. See Section 10.

## <u>9 VAC 5-140, CO<sub>2</sub> Budget Trading Program</u>

Virginia has finalized regulations to repeal the CO<sub>2</sub> trading program: the final repeal regulations are expected to have an effective date of August 30, 2023. If the state CO<sub>2</sub> trading program is not repealed, the proposed facility will be subject to, t and will comply with requirements including applying for a CO<sub>2</sub> budget permit as applicable. The permit application would need to be submitted no later than 12 months before the date on which the CO<sub>2</sub> budget source commences operation. The CO<sub>2</sub> budget permit would be issued by VDEQ in accordance with 9 VAC 5-85, Permits for Stationary Sources of Pollutants Subject to Regulation. The proposed facility would also need to meet the requirement of obtaining required CO<sub>2</sub> allowances.



# 5.0 Control Technology Review

## 5.1 <u>Applicable Air Pollution Control Requirements</u>

The proposed project is subject to review with respect to the following control technology requirements:

- BACT for those pollutants that exceed PSD SER thresholds specified in
   9 VAC 5-80-1615.C for which Chesterfield County is classified as attainment. Those pollutants include CO, PM<sub>2.5</sub>, and VOCs for this project.
- BACT for GHG emissions if the total project CO<sub>2</sub>e potential emissions exceed
   75,000 tpy and the facility is subject to PSD review for a regulated non-GHG pollutant.
- Virginia BACT review for pollutants not subject to BACT under PSD if the facility will have an uncontrolled emissions rate for those pollutants that exceeds the Virginia minor NSR permitting thresholds stated in 9 VAC 5-80-1105.D1. This includes NO<sub>x</sub>, PM, PM<sub>10</sub>, SO<sub>2</sub>, and H<sub>2</sub>SO<sub>4</sub> for this project. Although the Virginia BACT review requirements may not apply to emission units exempt from minor NSR permitting (e.g., fuel gas heater), a state BACT analysis for NO<sub>x</sub>, PM, PM<sub>10</sub>, SO<sub>2</sub>, and H<sub>2</sub>SO<sub>4</sub> was performed for these units.

The BACT analyses evaluate the "production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques" that are applicable to the proposed emissions units. As previously mentioned, BACT does not require consideration of alternatives that would result in a redefinition of the source, here a natural gas simple cycle combustion turbine electric generating facility.

Dominion selected simple cycle combustion turbines to ensure reliable, dispatchable service during peak electric demand periods, seasonal peaks, and extreme weather events. The CERC project will support the growth of clean, renewable energy, to maintain reliability during periods of peak customer demand and when renewable resources are unavailable or insufficient to meet customer needs. There will be times when solar and wind are not generating enough electricity to meet the demands of our customers and a dispatchable energy generation source, such as these combustion turbines, are critical to fill the gaps to keep the lights on for our customers. This project supports



Dominion's commitment of having a versatile and diverse fuel mix (which also includes nuclear, solar, offshore wind, pumped hydroelectric storage, and battery storage), so we are not reliant on one specific type of power generation to ensure reliable around-the-clock energy for our customers.

Dominion considered combined cycle combustion turbines as an alternative but concluded that the proposed simple cycle combustion turbines were better suited to meet the objectives of the project. Unlike combined cycle combustion turbines, simple cycle combustion turbines can be quickly deployed at a moment's notice when customer demand is critically high going from not operating to online and producing power in a very short timeframe. They also are designed for repeated starts and stops and have better capital economics for low capacity-factor operations (i.e., normal operation limited to 3,240 hours per year for each turbine). The proposed SCCTs are well suited to provide dispatchable around-the-clock reliable energy when other resources, such as wind and solar, are unavailable or insufficient to meet customer demand.

Dominion also considered whether other technologies, such as battery storage, would satisfy the objectives of the project. They were rejected as viable alternatives to the proposed simple cycle combustion turbines due to the limited duration of commercially available batteries. Commercially available battery storage, which does not produce electricity but stores it for later use, can ramp up to full power within seconds, but can supply that energy only for a short duration, as compared to simple cycle combustion turbines. Typically for grid applications, energy batteries are sized for up to four hours, which may be insufficient to meet peak demand. Utility-scale long duration battery storage is still considered an emerging technology, whereas simple cycle combustion turbine technology is more mature and has a proven record of generating reliable electricity. Combustion turbines can provide more energy over a longer period of time. The proposed simple cycle combustion turbines will generate nearly 1,000 MWe of sustained energy, while the battery energy storage facilities in operation today are smaller in both capacity and duration capabilities. Dominion currently operates three lithium-ion based battery storage pilot projects totaling 16 MWe of energy storage and is in the construction phase of three additional 4-hour lithium-ion battery storage projects totaling 85.7 MWe. However, for the reasons above, battery storage is not capable of meeting the stated purpose for this project and was therefore rejected. In addition to not meeting the objectives of the project, consideration of other technologies would require a fundamental redesign of the proposed project redefining the source: Virginia does not interpret its BACT



requirements (both PSD and minor NSR) as a means of redefining the source proposed by the applicant.

The BACT analyses for the proposed project emission units are discussed in the following subsections.

# 5.2 BACT Analysis Description

A BACT analysis is required for pollutants subject to permitting, either the PSD regulations or just the Virginia minor NSR regulations. BACT applies to each air emissions source associated with the project that emits a pollutant subject to permitting. BACT for PSD is defined by VDEQ under 9 VAC 5801615.C as "an emissions limitation (including a visible emissions standard) based on the maximum degree of reduction for each regulated NSR pollutant that would be emitted from a proposed major stationary source or major modification that the board, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant." BACT for the minor NSR program is defined in 9 VAC 5-50-250.C and is generally consistent with the PSD definition.

For PSD applications, VDEQ recommends use of EPA's five-step top-down approach to the BACT analysis. For minor NSR BACT, presumptive BACT is appropriate when there is sufficient experience with the industry category; otherwise VDEQ recommends the top-down approach. For those pollutants for which PSD permitting is not triggered, Dominion feels there is sufficient experience, based on numerous previously permitted facilities, for presumptive BACT to apply to the emergency generators, fire pump, and natural gas heater.

For pollutants triggering PSD and all regulated pollutants from the CTs, BACT analyses were performed in accordance with EPA's five-step top-down method. The first step in the top-down BACT analysis is the identification of available control technologies. Alternatives considered included process designs and operating practices that reduce the formation of emissions, post-process stack controls that reduce emissions after they are formed, and combinations of these two control categories. Sources of information used to identify available control alternatives include:



- EPA's RBLC database.
- Vendor information.
- ECT's experience with similar projects.

Following the identification of available control technologies, the second step in the analysis is to determine which technologies may be technically infeasible. Technical feasibility was evaluated using the criteria contained in Chapter 4 of APG-309 and Chapter B of the draft EPA NSR Workshop Manual (EPA, 1990). The third step in the top-down BACT process is the ranking of the remaining technically feasible control technologies from high to low in order of control effectiveness.

An assessment of energy, environmental, and economic impacts is then performed as step four. The economic analysis procedures can be found in the Office of Air Quality Planning and Standards Control Cost Manual (EPA, 2002). The fifth and final step is the selection of a BACT emissions limitation or a design, equipment, work practice, operational standard, or combination thereof that is achievable with the most stringent, technically feasible control technology that was not eliminated based on adverse energy, environmental, or economic grounds.

If the most stringent or top control technology is selected, an assessment of energy and economic impacts is not required. In this case, a review of collateral environmental impacts is conducted to determine if selection of a less stringent alternative control technology is warranted. If there are no issues regarding collateral environmental impacts, the top control technology is proposed as BACT, and the BACT analysis is concluded by selecting an emission limitation achievable with that technology.

The following sections provide control technology analyses using the five-step top-down BACT method for NO<sub>x</sub>, CO, VOC, PM/PM<sub>10</sub>/PM<sub>2.5</sub>, SO<sub>2</sub>, H<sub>2</sub>SO<sub>4</sub> and GHG emissions for equipment emitting these pollutants.

# 5.3 **BACT Analysis for Combustion Turbines (Normal Operations)**

# 5.3.1 BACT for NO<sub>x</sub>

NO<sub>x</sub> emissions from combustion sources such as a CT unit consist of two components: oxidation of combustion air atmospheric nitrogen (thermal NO<sub>x</sub> and prompt NO<sub>x</sub>) and conversion of fuel bound



nitrogen (FBN), also referred to as fuel NO<sub>x</sub>. Essentially NO<sub>x</sub> emissions originate as nitric oxide (NO). NO generated by the combustion processes are subsequently further oxidized in the atmosphere to the more stable NO<sub>2</sub> molecule.

Thermal NO<sub>x</sub> results from the oxidation of atmospheric nitrogen under high temperature combustion conditions. The amount of thermal NO<sub>x</sub> formed is primarily a function of combustion temperature and residence time, air/fuel ratio, and, to a lesser extent, combustion pressure. Thermal NO<sub>x</sub> increases exponentially with increases in temperature and linearly with increases in residence time as described by the Zeldovich mechanism.

Prompt NO<sub>x</sub> is formed near the combustion flame front from the oxidation of intermediate combustion products. Prompt NO<sub>x</sub> comprises a small portion of total NO<sub>x</sub> in conventional near-stoichiometric combustors but increases under fuel-lean conditions. Prompt NO<sub>x</sub>, therefore, is an important consideration with respect to low-NO<sub>x</sub> combustors that use lean fuel mixtures. Prompt NO<sub>x</sub> levels may also become significant with ultra-low-NO<sub>x</sub> burners.

Fuel NO<sub>x</sub> arises from the oxidation of non-elemental nitrogen contained in the fuel. The conversion of FBN to NO<sub>x</sub> depends on the bound nitrogen content of the fuel. In contrast to thermal NO<sub>x</sub>, fuel NO<sub>x</sub> formation does not vary appreciably with combustion variables such as temperature or residence time. Presently, there are no combustion processes or fuel treatment technologies available to control fuel NO<sub>x</sub> emissions. For this reason, the regulations typically contain an allowance for FBN directly or inherently (i.e., part of the emissions limit). NO<sub>x</sub> emissions from combustion sources fired with fuel oil are typically higher than those fired with natural gas due to higher combustion flame temperatures and FBN content. Natural gas may contain molecular nitrogen (N<sub>2</sub>); however, the molecular nitrogen found in natural gas does not contribute significantly to fuel NO<sub>x</sub> formation. Typically, natural gas contains a negligible amount of FBN.

## 5.3.1.1 <u>Available NO<sub>x</sub> Control Technologies (Step 1)</u>

Available technologies for controlling NO<sub>x</sub> emissions from a CT unit include combustion process modifications and post-combustion exhaust gas treatment systems. A listing of available control technologies for each of these categories follows:

• Combustion process modifications:



- Water or steam injection and standard combustor design
- Water or steam injection and advanced combustor design
- Dry low-NO<sub>x</sub> combustor design
- Catalytic combustion controls
- Post-combustion exhaust gas treatment systems:
  - Selective noncatalytic reduction (SNCR).
  - Nonselective catalytic reduction (NSCR).
  - o SCR.
  - EMx<sup>™</sup> (SCONOx<sup>™</sup>).

A description of each of the listed control technologies is provided in the following subsections.

#### Water or Steam Injection and Standard Combustor Design

Injection of water or steam into the primary combustion zone of a CT reduces the formation of thermal NO<sub>x</sub> by decreasing the peak combustion temperature. Water injection decreases the peak flame temperature by diluting the combustion gas stream and acting as a heat sink by absorbing heat necessary to vaporize the water (latent heat of vaporization) and raise the vaporized water temperature to the combustion temperature. High purity water, i.e., demineralized water, must be employed to prevent turbine corrosion and deposition of solids on the CT blades. Steam injection employs the same mechanisms to reduce peak flame temperature with the exclusion of heat absorbed due to vaporization, because the heat of vaporization has been added to the steam prior to injection. Accordingly, a greater amount of steam, on a mass basis, is required to achieve a specified level of NO<sub>x</sub> reduction in comparison to water injection. Typical injection rates range from 0.3 to 1.0 and 0.5 to 2.0 lb of water and steam, respectively, per pound of fuel. Water or steam injection will not reduce the formation of fuel NO<sub>x</sub>.

The maximum amount of steam or water that can be injected depends on the CT combustor design. Excessive rates of injection will cause flame instability, combustor dynamic pressure oscillations, thermal stress (cold-spots), and increased emissions of CO and VOCs due to combustion inefficiency. Accordingly, the efficiency of steam or water injection to reduce NO<sub>x</sub> emissions also depends on turbine combustor design. For a given CT design, the maximum water to fuel ratio (and maximum NO<sub>x</sub> reduction) will occur up to the point where cold-spots and flame instability adversely affect safe, efficient, and reliable operation of the turbine. The use of water or steam injection and standard



turbine combustor design can generally achieve NO<sub>x</sub> exhaust concentrations of 42 ppmvd for gas firing.

#### Water or Steam Injection and Advanced Combustor Design

Water or steam injection functions in the same manner for advanced combustor designs as described previously for standard combustors. Advanced combustors, however, have been designed to generate lower levels of NO<sub>x</sub> and tolerate greater amounts of water or steam injection. The use of water or steam injection and advanced turbine combustor design can typically achieve NO<sub>x</sub> exhaust concentrations of 25 ppmvd for gas firing, depending on the CT vendor and operating load scenario.

## Dry Low-NO<sub>x</sub> Combustor Design

Dry low-NO<sub>x</sub> combustors are designed to premix CT fuel and air prior to combustion in the primary zone. Premixing results in a homogeneous air/fuel mixture without an identifiable flame front. This allows a lower flame temperature in the combustion zone, causing a decrease in thermal NO<sub>x</sub> emissions.

Currently, premixing is limited in application to natural gas and natural gas/hydrogen fuel blends and loads above approximately 35 to 50 percent of baseline due to flame stability considerations. During oil-firing, water injection is typically employed to control NO<sub>x</sub> emissions.

In addition to lean premixed combustion, dry low-NO<sub>x</sub> combustors typically incorporate lean combustion and reduced combustor residence time to reduce the rate of NO<sub>x</sub> formation. CTs cool the high-temperature CT combustor discharge gas stream with dilution air to lower the exhaust gas to an acceptable temperature prior to entering the turbine. By adding additional dilution air, the hot CT combustor gases are rapidly cooled to temperatures below those needed for NO<sub>x</sub> formation. Reduced residence time combustors add the dilution air sooner than do standard combustors. The amount of thermal NO<sub>x</sub> is reduced, because the CT combustion gases are at a higher temperature for a shorter period of time.

Current dry low-NO<sub>x</sub> combustor technology can typically achieve NO<sub>x</sub> exhaust concentrations of approximately 9-25 ppmvd using natural gas fuel, depending on the CT vendor and operating load scenario.



#### **Catalytic Combustion Controls (XONON™)**

Another technology that is potentially capable of reducing gas turbine NO<sub>x</sub> emissions to less than 3.5 ppmvd is catalytic combustion. Catalytica, Inc. was the first to commercially develop catalytic combustion controls for certain (mostly smaller) turbine engines and markets this system under the name XONON<sup>™</sup>. In October 2006, this technology was sold to Kawasaki Heavy Industries, Ltd. It is not commercially available for larger CTs, such as the 250 MWe CTs proposed. Therefore, catalytic combustion does not represent an available control option for the proposed CT.

#### **Selective Noncatalytic Reduction**

The SNCR process involves the gas phase reaction of NO<sub>x</sub> in the exhaust gas stream with injected ammonia or urea, in the absence of a catalyst, to yield nitrogen and water vapor. The two commercial applications of SNCR include the Electric Power Research Institute's NOxOUT<sup>™</sup> and Exxon's Thermal DeNOx<sup>™</sup> processes. The two processes are similar in that either ammonia (Thermal DeNOx<sup>™</sup>) or urea (NOxOUT<sup>™</sup>) is injected into a hot exhaust gas stream at a location specifically chosen to achieve the optimum reaction temperature and residence time. Simplified chemical reactions for the Thermal DeNOx<sup>™</sup> process are as follows:

$$4NO + 4NH_3 + O_2 = 4N_2 + 6 H_2O$$
(1)  

$$4 NH_3 + 5 O_2 = 4NO + 6 H_2O$$
(2)

The NOxOUT<sup>™</sup> process is similar with the exception that urea is used in place of ammonia. The critical design parameter for both SNCR processes is the reaction temperature. At temperatures below 1,600°F, rates for both reactions decrease, allowing unreacted ammonia to exit with the exhaust stream. Temperatures between 1,600 and 2,000°F will favor reaction (1), resulting in a reduction in NO<sub>x</sub> emissions. Reaction (2) will dominate at temperatures above approximately 2,000°F, causing an increase in NO<sub>x</sub> emissions. Due to reaction temperature considerations, the SNCR injection system must be located at a point in the exhaust duct where temperatures are consistently between 1,600 and 2,000°F.

## **Nonselective Catalytic Reduction**

The NSCR process uses a platinum/rhodium catalyst to reduce NO<sub>x</sub> to nitrogen and water vapor under fuel-rich (less than 3 percent oxygen gas) conditions. NSCR technology has only been applied



to automobiles and stationary reciprocating engines and does not represent an available control option.

#### **Selective Catalytic Reduction**

In contrast to SNCR, SCR reduces  $NO_x$  emissions by reacting ammonia with exhaust gas  $NO_x$  to yield nitrogen and water vapor in the presence of a catalyst. Ammonia is injected upstream of the catalyst bed where the following primary reactions take place:

$$4NH_3 + 4NO + O_2 = 4N_2 + 6H_2O$$
(3)

$$4NH_3 + 2NO_2 + O_2 = 3N_2 + 6H_2O$$
(4)

The catalyst serves to lower the activation energy of these reactions, which allows NO<sub>x</sub> conversions to take place at a lower temperature than the exhaust gas. The optimum temperatures range from as low as 350°F to as high as 1,100°F (typically 600 to 750°F), depending on the catalyst. Typical SCR catalysts include metal oxides (titanium oxide and vanadium), noble metals (combinations of platinum and rhodium), zeolite (alumino-silicates), and ceramics.

Factors affecting SCR performance include space velocity (volume per hour of flue gas divided by the volume of the catalyst bed), ammonia/NO<sub>x</sub> molar ratio, and catalyst bed temperature. Space velocity is a function of catalyst bed depth. Decreasing the space velocity (increasing catalyst bed depth) will improve NO<sub>x</sub> removal efficiency by increasing residence time but will also cause an increase in catalyst bed pressure drop. The reaction of NO<sub>x</sub> with ammonia theoretically requires a 1:1 molar ratio. Ammonia/NO<sub>x</sub> molar ratios greater than 1:1 are necessary to achieve high NO<sub>x</sub> removal efficiencies due to imperfect mixing and other reaction limitations. However, ammonia/NO<sub>x</sub> molar ratios are typically maintained at 1:1 or lower to prevent excessive unreacted ammonia (ammonia slip) emissions. As is the case for SNCR, reaction temperature is critical for proper SCR operation. Below the critical temperature range, reduction reactions (3) and (4) will not proceed. At temperatures exceeding the optimal range, oxidation of ammonia will take place resulting in an increase in NO<sub>x</sub> emissions. NO<sub>x</sub> removal efficiencies for SCR systems will vary depending on the NO<sub>x</sub> inlet concentration.

#### <u>EMx<sup>™</sup> (SCONOx<sup>™</sup>)</u>

EMx<sup>™</sup> (formerly referred to as SCONOx<sup>™</sup>) is a proprietary, multipollutant reduction catalytic control system offered by EmeraChem. EMx<sup>™</sup> is a complex technology that is designed to simultaneously reduce NO<sub>x</sub>, VOC, and CO through a series of oxidation/absorption catalytic reactions.



The EMx<sup>M</sup> system employs a single catalyst to simultaneously oxidize CO to CO<sub>2</sub> and NO to NO<sub>2</sub>. NO<sub>2</sub> formed by the oxidation of NO is subsequently absorbed onto the catalyst surface through the use of a potassium carbonate absorber coating. The EMx<sup>M</sup> oxidation/absorption cycle reactions are:

$$CO + \frac{1}{2}O_2 = CO_2$$
 (5)

$$NO + \frac{1}{2}O_2 = NO_2$$
 (6)

$$2 NO_2 + K_2 CO_3 = CO_2 + K NO_2 + K NO_3$$
(7)

CO<sub>2</sub> produced by reactions (5) and (7) is released to the atmosphere as part of the CT exhaust gas stream. Water vapor and elemental nitrogen are released to the atmosphere as part of the CT exhaust gas stream. Following regeneration, the EMx<sup>™</sup> catalyst has a fresh coating of potassium carbonate, allowing the oxidation/absorption cycle to begin again. Because the regeneration cycle must take place in an oxygen-free environment, the section of catalyst undergoing regeneration is isolated from the exhaust gas stream using a set of louvers.

The EMx<sup>™</sup> operates at a temperature range of 300 to 700°F and, therefore, the temperature of the exhaust gas stream from a simple cycle combustion turbine must be significantly reduced to fall within this optimal operating temperature range. For installations below 450°F, the EMx<sup>™</sup> system uses an inert gas generator to produce hydrogen and CO<sub>2</sub> for catalyst regeneration. For installations above 450°F, the EMx<sup>™</sup> catalyst is regenerated by introducing a small quantity of natural gas with a carrier gas, such as steam, over a steam reforming catalyst and then to the EMx<sup>™</sup> catalyst. The reforming catalyst initiates the conversion of methane to hydrogen, and the conversion is completed over the EMx<sup>™</sup> catalyst. Utility materials needed for the operation of the EMx<sup>™</sup> control system include ambient air, natural gas, water, steam, and electricity. The primary utility material is natural gas used for regeneration gas production. Steam is used as the carrier/dilution gas for the regeneration gas. Electricity is required to operate the computer control system, control valves, and louver actuators.

Commercial experience to date with the EMx<sup>™</sup> control system is limited to several small combinedcycle power plants located in California. Representative of these small power plants is an aeroderivative GE LM2500 turbine, owned by Sunlaw Energy Corporation, equipped with water injection to control NO<sub>x</sub> emissions to approximately 25 ppmvd. The low temperature SCONOx<sup>™</sup> control system (i.e., located downstream of the HRSG at a temperature between 300 and 400°F) was



retrofitted to the Sunlaw Energy facility in December 1996 and has achieved a NO<sub>x</sub> exhaust concentration of 3.5 parts per million by volume (ppmv) resulting in an approximate 85-percent NO<sub>x</sub> removal efficiency. This facility is no longer operating due to market factors. A high-temperature application of EMx<sup>™</sup> (i.e., control system located within the HRSG at a temperature between 600 and 700°F) has been in service since June 1999 on a small, 5-MWe Solar CT located at the Genetics Institute in Massachusetts. Although considered commercially available for large natural gas-fired turbines, there are currently no combustion turbines greater than 43 MWe that have demonstrated successful application of the EMx<sup>™</sup> control technology.

# 5.3.1.2 <u>NO<sub>x</sub> BACT Technical Feasibility (Step 2)</u>

Water/steam injection and standard combustor design, water/steam injection and advanced combustor, and dry low-NO<sub>x</sub> combustor design are the available combustion control technologies that would be considered technically feasible combustion processes for the proposed General Electric 7FA.05 SCCTs.

Of the post-combustion exhaust gas treatment technologies, SNCR is not feasible because the temperature required for this technology (between 1,600 and 2,000°F) exceeds the exhaust gas temperature of the proposed General Electric 7FA.05 SCCTs (typically between 1,100 and 1,200°F). NSCR was also determined to be technically infeasible because the process must take place in a fuel-rich (less than 3-percent oxygen) environment. The oxygen content of the exhaust gas stream for the proposed General Electric 7FA.05 SCCTs is typically in excess of 12 percent.

SCR is considered technically feasible for the proposed General Electric 7FA.05 SCCTs.

EMx<sup>™</sup> is desirable in the fact that, unlike SCR, it does not require ammonia. However, as discussed previously, there are many complex technical issues associated with this technology. In addition, this technology has not been proven on larger simple-cycle CTs such as the proposed General Electric 7FA.05 SCCTs. Therefore, EMx<sup>™</sup> is not considered technically feasible.

# 5.3.1.3 NO<sub>x</sub> BACT Ranking of Technical Feasible Control Technologies (Step 3)

The following technically feasible control technologies are ranked from the highest level of control to the lowest level of control. The expected exhaust NO<sub>x</sub> concentration during normal operation has been provided for each control technology:



- SCR (2.5 ppm NO<sub>x</sub> natural gas-firing/5 ppm NO<sub>x</sub> fuel oil-firing)
- Dry-low NO<sub>x</sub> combustor design (25 ppm NO<sub>x</sub> natural gas-firing/42 ppm NO<sub>x</sub> fuel oil-firing)
- Water/steam injection and advanced combustor design (25 ppm NO<sub>x</sub> natural gas-firing/42 ppm NO<sub>x</sub> fuel oil-firing)
- Water/steam injection and standard combustor design (42 ppm NO<sub>x</sub>)

In each case, the NO<sub>x</sub> emissions while firing the  $H_2$  fuel blend are expected to be comparable to that listed for natural gas-fired operation. No reductions in NO<sub>x</sub> emissions are expected during SUSD events or LLE mode when evaluating an SCR system due to the fact that the exhaust gas temperature has not reached the optimal temperature of the SCR for NO<sub>x</sub> removal.

## 5.3.1.4 Energy, Environmental and Economic Impacts (Step 4)

There are no significant adverse energy or environmental impacts associated with the use of good combustor designs, including dry-low NO<sub>x</sub> combustors, and good combustion practices to minimize NO<sub>x</sub> emissions. The use of SCR will result in increased emissions of condensable PM and H<sub>2</sub>SO<sub>4</sub>. Ammonia is injected in the SCR to reduce NO<sub>x</sub> emissions but will react with any sulfur in the exhaust to form ammonium sulfates and sulfuric acid. These ammonium sulfate emissions will increase the condensable PM emissions and thus the total PM<sub>10</sub> and PM<sub>2.5</sub> emissions, which include both filterable and condensable PM emissions. The formation of ammonium sulfates and sulfuric acid will be limited by using low sulfur fuels and minimizing excess ammonia injection.

Dominion is proposing to install SCR along with advanced combustor design and water/steam injection. This represents the most-effective control technology identified; therefore, an economic impact analysis is not required.

# 5.3.1.5 <u>Proposed NO<sub>x</sub> BACT Emissions Limit (Step 5)</u>

To determine the most stringent NO<sub>x</sub> emissions limit, EPA's RBLC database was queried for simplecycle combustion turbines larger than 25 MWe. Appendix C, Tables C-1 and C-8 summarize BACT determinations for the past 10 years for units combusting natural gas and diesel fuel oil, respectively.

The lowest BACT determinations for simple cycle combustion turbine facilities that did not employ SCR was 9 ppm (natural gas) and 42 ppm (fuel oil) through the use of DLN combustors (natural gas)



and water injection (fuel oil). BACT determinations relying upon SCR ranged from 2 to 9 ppm on natural gas. The RBLC included two LAER determinations for simple cycle combustion turbines firing fuel oil using SCR to achieve limits of 4-5 ppmvd. Those few determinations below 2.5 ppm NO<sub>x</sub> were generally in non-attainment areas or required based on a regulation beyond BACT.

Based on this review, SCR is considered BACT and will result in proposed NO<sub>x</sub> emission limits of 2.5 ppmvd @ 15% O<sub>2</sub> for normal operating loads when combusting natural gas or the H2 fuel blend and 5 ppmvd @ 15% O<sub>2</sub> for normal operating loads when combusting fuel oil. Normal operating loads are defined as MECL to maximum power or 100% load (for natural gas and H<sub>2</sub> fuel blend combustion) and 50% load to maximum power or 100% load (for fuel oil combustion). These proposed NO<sub>x</sub> emission rates are based on NO<sub>x</sub> emission rates provided by the CT manufacturer for the proposed General Electric 7FA.05 combustion turbines with the addition of an SCR during normal steady-state operation and during transitional steady state operation. These proposed NO<sub>x</sub> emission limits are based on a 4-hour rolling average using CEMS. Table 5-1 presents the proposed NO<sub>x</sub> emissions limits for the SCCTs for the CERC project.

## Table 5-1. Proposed NOx Emissions Limits for the SCCTs

Emissions Source	Proposed NO <sub>x</sub> Emissions Limit (corrected to 15% O <sub>2</sub> )	Compliance Method		
Natural gas-firing	2.5 ppmvd	4-hour rolling average using CEMS		
H <sub>2</sub> fuel blend-firing	2.5 ppmvd	4-hour rolling average using CEMS		
fuel oil-firing	5 ppmvd	4-hour rolling average using CEMS		

Source: Dominion, ECT, 2023.

# 5.3.2 BACT for CO

# 5.3.2.1 Available CO Control Technologies (Step 1)

The two control technologies available for controlling CO include combustion process design and post combustion oxidation catalyst.



CO is emitted in CT exhaust due to incomplete combustion. Under ideal conditions, CO formed during the combustion process is converted to CO<sub>2</sub>. The conversion of CO to CO<sub>2</sub> is inhibited if insufficient oxygen is present or if the combustion products cool to temperatures below 625°F before oxidation of the CO is complete.

Combustion controls generally focus on maintaining optimal air/fuel ratios by ensuring thorough mixing and excess oxygen throughout the combustion unit. Increasing combustion temperatures can also promote complete combustion, but doing so will increase thermal NO<sub>x</sub> formation. CT design and operating practices strive to achieve balance to minimize both NO<sub>x</sub> and CO formation.

Oxidation catalysts are post-combustion controls which enhance the oxidation of CO to CO<sub>2</sub> without the addition of any chemical reagents. Typically, precious metals are used as the catalyst to promote oxidation. Catalyst volume is dependent upon the exhaust flow, temperature, and desired removal efficiency. Increasing the catalyst volume/depth creates increased pressure drop across the catalyst bed which, in turn, decreases the efficiency of the CT. In addition to controlling CO emissions, oxidation catalysts will oxidize VOCs and organic HAPs in the exhaust stream.

# 5.3.2.2 CO BACT Technical Feasibility (Steps 2 and 3)

Both CT combustor/burner design and oxidation catalyst control systems are considered to be technically feasible for the proposed CT.

No reductions in CO emissions are expected during SUSD events when evaluating an oxidation catalyst due to the fact that the exhaust gas temperature has not reached the optimal temperature of the oxidation catalyst for CO removal.

# 5.3.2.3 Energy, Environmental and Economic Impacts (Step 4)

There are no significant adverse energy or environmental impacts associated with the use of good combustor designs and good combustion practices to minimize CO emissions. The use of oxidation catalyst will result in increased H<sub>2</sub>SO<sub>4</sub> mist and salt emissions if applied to combustion devices fired with fuels containing appreciable amounts of sulfur. The proposed CTs will combust fuels with very low sulfur content (natural gas, H<sub>2</sub> blend, ultra-low sulfur diesel); therefore, H<sub>2</sub>SO<sub>4</sub> mist emissions will be limited.



Dominion is proposing to install oxidation catalyst along with advanced combustor design. This represents the most-effective control technology identified; therefore, an economic impact analysis is not required. In addition, this approach will reduce emissions of VOCs and formaldehyde. Controlling formaldehyde emissions is necessary to comply with the applicable limits in 40 CFR 63 Subpart YYYY.

## 5.3.2.4 Proposed CO BACT Emissions Limit (Step 5)

To determine the CO emissions limit for the CTs, EPA's RBLC database was queried for large CTs firing natural gas and fuel oil. BACT determinations were obtained for facilities permitted over the past 10 years and are summarized in Appendix C, Tables C-2 and C-9.

Table C-2 presents CO BACT determinations for simple cycle combustion turbines combusting natural gas. The lowest BACT determination shown was 4 ppmvd at 15% O<sub>2</sub> and was based on control method of good combustion design and practices. Several determinations relying upon a combination of good combustion design and oxidation catalysts were identified with CO emission limits of 5-6 ppmvd at 15% O<sub>2</sub>.

Table C-9 presents CO BACT determinations for simple cycle combustion turbines combusting fuel oil. The lowest BACT determination shown was 5 ppmvd at 15% O<sub>2</sub> for the Bayonne Energy Center located in New Jersey. This facility utilizes the Rolls Royce Trent combustion turbines which are aeroderivative type turbines and uses oxidation catalyst to achieve the CO BACT limit of 5 ppmvd.

Dominion will include an oxidation catalyst along with good combustion controls to reduce CO emissions to 2 ppmvd @ 15% O<sub>2</sub> for normal operating loads when combusting natural gas, H<sub>2</sub> fuel blend or fuel oil. The applicant requested CO emission limits are summarized in Table 5-2. These proposed CO emission limits are based on a 4-hour rolling average using CEMS.



Emissions Source	Proposed CO Emissions Limits (corrected to 15% O <sub>2</sub> )	Compliance Method		
Natural gas-firing	2 ppmvd	4-hour rolling average using CEMS		
$H_2$ fuel blend-firing	2 ppmvd	4-hour rolling average using CEMS		
fuel oil-firing	2 ppmvd	4-hour rolling average using CEMS		

# Table 5-2. Proposed CO Emissions Limit for each SCCT

Source: Dominion, ECT, 2023.

# 5.3.3 BACT for PM, PM<sub>10</sub>, and PM<sub>2.5</sub>

## 5.3.3.1 <u>Available PM/PM<sub>10</sub>/PM<sub>2.5</sub> Control Technologies (Step 1)</u>

Particulate matter emissions from combustion turbines are a result of incomplete combustion or the presence of sulfur compounds and ash from the fuel. These particulates are generally less than 1 micron in equivalent diameter and consist of both filterable and condensable fractions. Particulate matter emissions are also formed from the conversion of fuel sulfur to sulfates and ammonium sulfates for CTs equipped with SCR and oxidation catalysts.

The use of clean-burning, low sulfur, low ash fuels will result in minimal formation of PM/PM<sub>10</sub>/PM<sub>2.5</sub> during combustion. Best combustion practices will enhance complete combustion and minimize emissions of unburned hydrocarbons.

Post-combustion control technologies used for controlling PM emissions include the following:

- Centrifugal (cyclone) collectors.
- Electrostatic precipitators (ESPs).
- Fabric filters or baghouses.
- Wet scrubbers.

Centrifugal (cyclone) collectors are generally used in industrial applications to control large diameter particles (>10 microns). Cyclones impart a centrifugal force on the gas stream, which directs entrained particles outward. Upon contact with an outer wall, the particles slide down the cyclone



wall and are collected at the bottom of the unit. Cyclones are not effective for removing small particles. Therefore, centrifugal collectors are not considered technically feasible for CTs.

Fabric filters/baghouses use a filter material to remove particles from a gas stream. The exhaust gas stream flows through filters/bags onto which particles are collected. Baghouses are typically employed for industrial applications to provide high-efficiency particulate matter control. Baghouses can be designed to remove fine particulate matter, but they are most effective for larger diameter particles.

ESPs are used on a wide variety of industrial sources, including certain boilers. ESPs use electrical forces to move particles out of a flowing gas stream onto collector plates. The particles are given an electric charge by forcing them to pass through a region of gaseous ion flow called a corona. An electrical field generated by electrodes at the center of the gas stream forces the charged particles to be attracted to the ESP's collecting plates. Removal of the particles from the collecting plates is required to maintain sufficient surface area to clean the flowing gas stream. Removal must be performed in a manner to minimize re-entrainment of the collected particles.

Wet scrubbers remove pollutants by contacting the gas stream with an absorbent liquid. Various designs are in use to optimize control efficiency, scrubber size, liquid flow rates, and cost. Scrubbers are generally less effective at higher exhaust temperatures, higher exhaust flowrates, and lower pollutant loading concentrations.

## 5.3.3.2 PM/PM<sub>10</sub>/PM<sub>2.5</sub> BACT Technical Feasibility (Steps 2 and 3)

The use of clean fuels and good combustion practices are considered technically feasible for controlling particulate matter emissions from CTs.

No technically-feasible post-combustion control systems were identified to control  $PM/PM_{10}/PM_{2.5}$  emissions from CTs.

- Centrifugal collectors are not considered technically feasible for CTs because cyclones are not effective for removing small particles.
- Fabric filters are not well suited to high temperature exhaust conditions like those from CTs due to the risk of fire. Additionally, very fine particulate matter tends to plug the holes in the



filters, leading to masking and increased pressure drops. High pressure drops downstream of a CT negatively impacts the combustion process and energy efficiency of the unit.

- ESPs are typically used in applications where the exhaust flow rate is between 200,000 and 1,000,000 scfm and the inlet pollutant loading is between 1 and 50 grains per cubic foot. CTs firing clean, low-sulfur fuel have higher exhaust flow rates and lower pollutant loadings than recommended for an ESP.
- Scrubbers likewise are not suited for CTs firing gaseous fuels or low-sulfur oil because of high exhaust temperatures, high exhaust flowrates, and very low concentrations of particulate matter.

# 5.3.3.3 Proposed PM/PM<sub>10</sub>/PM<sub>2.5</sub> BACT Emissions Limit (Steps 4 and 5)

There is no significant adverse energy, environmental, or economic impacts associated with the use of clean fuels and good combustion practices.

EPA's RBLC database was queried for large CTs firing natural gas and fuel oil. BACT determinations were obtained for facilities combusting natural gas and fuel oil since 2010 and are summarized in Appendix C, Tables C-4 and C-11.

PM/PM<sub>10</sub>/PM<sub>2.5</sub> emissions from CTs are dependent on several factors, including: (1) the sulfur content of the fuel; and (2) the use of a post-combustion SCR and/or oxidation catalyst control systems. It is difficult to make comparisons of numerical BACT emissions limits with respect to PM/PM<sub>10</sub>/PM<sub>2.5</sub> emissions for several reasons. First, some of the queried results represent emissions limits based on only the filterable portion of total PM/PM<sub>10</sub>/PM<sub>2.5</sub> emissions. If the condensable portion, including sulfates generated during the combustion process, is not included, a lower lb/MMBtu emissions limit will result. Second, the emissions limits that do contain both the filterable and condensable portion are based on widely varying natural gas sulfur contents. Sulfur in the fuel is converted to sulfates during the combustion process, and these sulfates add to the condensable portion of the total PM/PM<sub>10</sub>/PM<sub>2.5</sub> emissions. Facilities that have a higher natural gas sulfur content have higher PM/PM<sub>10</sub>/PM<sub>2.5</sub> emissions based solely on the condensable portion. Lastly, the inclusion of an SCR to control NO<sub>x</sub> emissions and oxidation catalyst to control CO and VOC emissions will further promote oxidation of sulfur into SO<sub>3</sub> and H<sub>2</sub>SO<sub>4</sub> and thus result in an increased condensable portion of PM<sub>10</sub> and PM<sub>2.5</sub>. Similarly, increased ammonia injection with an



SCR to achieve very low NOx levels will increase the presence of ammonium sulfates. (Note: PM emissions are presented as filterable only consistent with VDEQ's regulations.)

As shown in Table C- 4, PM<sub>10</sub> and PM<sub>2.5</sub> BACT determinations for natural gas combustion range from 0.005 to 0.008 lb/MMBtu for cases listing a numeric limit on a lb/MMBtu basis. However, due to the variables listed above, many states only list a technology or fuel-based limitation for particulates from the combustion of clean fuels such as natural gas. One determination (Greenridge Station, NY) is shown to employ a bagfilter as BACT. The actual permit that was issued to the site indicates the facility operates a boiler, not a CT, firing natural gas with up to 19 percent biomass.

Table C-9 contains PM<sub>10</sub> and PM<sub>2.5</sub> BACT determinations for fuel oil combustion. As shown, the determinations list the use of fuel oil as the control method and specify an hourly emission limit, rather than a concentration or heat input based limit. PM/PM<sub>10</sub>/PM<sub>2.5</sub> BACT determinations are based on using clean fuels, i.e., natural gas or fuel oil, and good combustion practices.

Table 5-3 presents the proposed  $PM_{10}/PM_{2.5}$  BACT emissions limits for the SCCTs for the CERC project. A separate BACT limit for PM is not proposed since all particulate emissions from the CTs are presumed to be less than 1 micron in size and PM would be equal to the filterable fraction of the  $PM_{10}/PM_{2.5}$  emissions.

As shown, the proposed  $PM_{10}/PM_{2.5}$  BACT emission limit (filterable and condensable) when combusting natural gas or H<sub>2</sub> fuel blend is 0.014 lb/MMBtu (HHV). This proposed BACT emission limit is valid while combusting natural gas or H<sub>2</sub> fuel blend at all loads.

The proposed PM<sub>10</sub>/PM<sub>2.5</sub> BACT emission limit (filterable and condensable) when combusting fuel oil is 0.04 lb/MMBtu (HHV). This proposed BACT emission limit is valid at while combusting fuel oil at all loads.

These proposed  $PM_{10}/PM_{2.5}$  BACT emission limits are based on a 3-hour average and are consistent with other previous  $PM_{10}/PM_{2.5}$  BACT determinations.



Proposed PM <sub>10</sub> /PM <sub>2.5</sub> BACT Emissions Limits		
0.014 lb/MMBtu (HHV) 0.014 lb/MMBtu (HHV) 0.04 lb/MMBtu (HHV)		

## Table 5-3. Proposed PM10/PM2.5 BACT Emissions Limit for each SCCT

Source: Dominion, ECT, 2023.

# 5.3.4 BACT for GHG Emissions

On June 3, 2010, EPA published a final rule (effective August 2, 2010) in the Federal Register (75 FR 31,514) entitled PSD and Title V GHG Tailoring Rule, commonly referred to as the Tailoring Rule. For PSD/Title V purposes, GHGs are a single air pollutant defined as the aggregate group of CO<sub>2</sub>, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and SF<sub>6</sub>. This final rule established specific applicability thresholds for GHG emissions for new major sources and modifications to existing major sources under the PSD and Title V programs. Virginia adopted 9 VAC 5-85 to address GHG PSD and Title V permitting requirements.

Under 9 VAC 5-85, a new major stationary source or major modification for an NSR pollutant other than GHG, whose GHG emissions exceed 75,000 tpy CO<sub>2</sub>e, will be subject to PSD review, including a BACT analysis for GHG emissions. CO<sub>2</sub>e emissions are defined as the sum of the mass emissions of each individual GHG adjusted for its respective global warming potential (GWP) using Table A-1 of the GHG Reporting Program (40 CFR 98, Subpart A).

The CERC project will be considered a major modification which will trigger PSD applicability for an NSR pollutant other than GHG and will have CO<sub>2</sub>e emissions greater than 75,000 tpy. Therefore, the project will require a BACT analysis for GHG.

Application of BACT for GHG emissions from the SCCTs to be installed as a part of the Project cannot result in GHG emissions in excess of the levels allowed by an applicable NSPS. In October 2015, EPA promulgated NSPS Subpart TTTT - Standards of Performance for GHG Emissions from New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units. As discussed in Section 4.4.6, NSPS Subpart TTTT is applicable to fossil fuel-fired power plants that commence



construction on or after January 8, 2014; therefore, Subpart TTTT is applicable to the project. For a newly constructed stationary combustion turbine that combusts 90% or less natural gas on a heat input basis on a 12-operating-month rolling average basis, the applicable limit under Subpart TTTT is 120 to 160 lb CO<sub>2</sub> per MMBtu of heat input as determined based on the amount of natural gas and fuel oil combusted. The proposed SCCTs will meet the heat input-based standards in Subpart TTTT.

On May 23, 2023, EPA published a proposed New Source Performance Standard for GHG Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units (NSPS Subpart TTTTa). This new rule is expected to apply to the proposed SCCTs when it becomes final. As EPA stated in the preamble, "a proposed NSPS does not establish the BACT floor for affected facilities seeking a PSD permit," 88 Fed. Reg. 33407-08 (May 23, 2023). In any case, Dominion will comply with applicable requirements of the final rule.

In March 2011, EPA published an updated guidance document entitled PSD and Title V Permitting Guidance for Greenhouse Gases (EPA, 2011a). This guidance document provides, among other things, guidance on performing BACT analyses for GHG emissions. EPA's guidance reaffirms that a BACT analysis for GHG emissions may be conducted using the same five-step, top-down approach used for other NSR pollutants. The following subsections provide the BACT analysis for GHG emissions for the SCCTs. The SCCTs will be a primary source of GHGs emitted by the proposed project. The following describes the five-step BACT analysis performed for the SCCTs.

## 5.3.4.1 Available GHG Control Technologies (Step 1)

Step 1 of the top-down BACT analysis is the identification of available control technologies or techniques, including inherently lower-emitting processes/practices/designs, add-on controls, and a combination of inherently lower-emitting processes/practices and add-on controls, that have a practical application to the control of GHG emissions. These control technologies must include control technologies for the pollutant under evaluation, GHG, regardless of the source category type. For example, control technologies must be identified not only for those demonstrated on other simple-cycle combustion turbine facilities, but also for control technologies determined available through technology transfer that are applied to source categories with similar exhaust stream characteristics.



Technologies that formed the basis of an applicable NSPS should also be considered in the BACT analysis, since a BACT emissions limit cannot be less stringent than an applicable NSPS emissions limit. As previously referenced, NSPS Subpart TTTT will apply to the stationary combustion turbines. Under NSPS TTTT, EPA determined the best system of emission reduction (BSER) for CTs to be clean fuels for non-baseload and multi-fuel firing units, and efficient natural gas combined-cycle units for baseload units. In the recent NSPS Subpart TTTTa proposal, EPA has proposed BSER for low-, intermediate-, and base-load units. Proposed BSER for low-load units is the same as under NSPS TTTT (lower emitting fuels), with the proposed intermediate load BSER being co-firing of 30% low GHG hydrogen (H<sub>2</sub>) by 2032. For base-load units, the proposed BSER is 90% carbon capture and sequestration (CCS) by 2035 or 30% co-firing low-GHG H<sub>2</sub> by 2032 and 90% by 2038.

## <u>CT Energy Efficiency Designs, Practices, and Procedures</u> CT Design

CO<sub>2</sub> is a product of combustion of fuel containing carbon, and the basic theoretical combustion equation for methane (CH<sub>4</sub>) is:

 $CH_4 + 2 O_2 = CO_2 + 2H_2O$ 

CO<sub>2</sub> emissions are the essential product of the chemical reaction between the fuel and the oxygen in which it burns, not a byproduct caused by imperfect combustion. The only effective means to minimize the amount of CO<sub>2</sub> generated by a fuel-burning power plant is through high-efficiency combustion and plant design resulting in the lowest heat rate in units of Btu/kWh. Minimizing the amount of fuel required (in units of million British thermal units) to produce a given amount of electrical power output (in units of kilowatt-hours) results in the lowest amount of CO<sub>2</sub> generated.

In addition to the high-efficiency primary components of the General Electric turbines, there are a number of other design features employed within the turbines that can improve overall efficiency of the machine, including those summarized in the following paragraphs.

## Evaporative Inlet Air Cooling or Inlet Fogging

Evaporative inlet air cooling or inlet fogging is used during middle and high ambient air temperature operating cases to lower the temperature of the inlet combustion air and thus increase the density of the combustion air. Increasing the density increases the mass flow rate of the inlet combustion



air, which allows more fuel to be combusted in the CT process. This provides greater electrical power output from the CT during certain operating cases and in cases of high electrical power demand. Increasing the electrical power output provides increased overall energy efficiency of the CT.

#### **Periodic Burner Tuning**

Combustion turbines have regularly scheduled maintenance programs. These maintenance programs are important for the reliable operation of the unit, as well as to maintain optimal efficiency. As the CT is operated, the unit experiences degradation and loss in performance. The CT maintenance program helps restore the recoverable lost performance. The maintenance program schedule is determined by the number of hours of operation and/or turbine starts. There are three basic maintenance levels: combustion inspections, hot gas path inspections, and major inspections. Combustion inspections are the most frequent of the maintenance cycles. As part of this maintenance activity, the combustors are tuned to restore highly efficient low-emissions operation. Hot gas path inspections and major inspections occur on a manufacturer-prescribed schedule and involve inspection and possible replacement of internal mechanical parts including compressor or turbine blades to restore highly efficient low-emissions operation.

#### **Reduction in Heat Loss**

CTs have high operating temperatures. The high operating temperatures are a result of the heat of compression in the compressor along with the fuel combustion in the burners. To minimize heat loss from the CT and protect personnel and equipment around the machine, insulation blankets are applied to the CT casing. These blankets minimize heat loss through the CT shell and help improve overall efficiency of the machine.

## **Instrumentation and Controls**

CTs have sophisticated instrumentation and controls to automatically manage operation of the CT. The control system is a digital-type and is supplied with the CT. The distributed control system controls aspects of the turbine's operation, including the fuel flow rate and burner operations to achieve high efficiency and low-NO<sub>x</sub> combustion. The control system monitors operation of the unit and modulates fuel flow and turbine operation to achieve optimal high-efficiency, low-emissions performance under operating cases.



#### **Carbon Capture and Sequestration**

According to EPA, the only available post-combustion control technology for GHG emissions for the CTs is carbon capture and sequestration (CCS). When evaluating the feasibility of CCS, unlike other control options, the feasibility of three requisite components must be evaluated: capture, compression and transport, and sequestration. The integration of these three components, as well as the legal issues associated with CCS, must also be included in its feasibility evaluation.

#### CO<sub>2</sub> Capture

Capturing  $CO_2$  is a technology that has not been domestically applied at full-scale to natural gasfired power plants. CO<sub>2</sub> gas separation technologies have been developed and employed in the industrial sector (e.g., petroleum refining and natural gas purification) for more than 70 years (Interagency Task Force, 2010). Also, CO<sub>2</sub> capture on a small scale has been happening for many years in the petroleum and industrial chemical industry. However, capturing  $CO_2$  on the full commercial scale of a power plant has not been domestically performed and has limited international operating experience. There are various pilot scale and demonstration projects either already underway or soon to be in operation at coal-fired power plants that are testing technologies that could one day be used at this scale. Table 5-4 lists several of these projects. The 115-MWe Boundary Dam Power Station operated by Sask-Power and located in Saskatchewan (also known as the Shand Carbon Capture Test Facility) and the 240 MWe Petra Nova project in Texas (also known as the NRG W.A. Parish project) are the only commercial-scale electric generating units with CO<sub>2</sub> capture operating experience. However, the Boundary Dam Power Station's operating experience is limited and coupled with reported capacity issues, and the Petra Nova project only captures a portion of the CO<sub>2</sub> in a slipstream from a coal-fired unit. Notably, the Petra Nova project is not integrated, but rather requires an additional fossil fuel-fired power plant to provide the power needed to operate the CCS system, which results in additional  $CO_2$  emissions. In addition, both of these projects relied heavily on government funding that is not necessarily available to other sources.

There are several methods to remove CO<sub>2</sub> from flue gas that are being developed and demonstrated at various capacities. The most studied post-combustion CO<sub>2</sub> removal processes to date employ reagents or sorbents that include ammonia, monoethanolamine, or other amine-based reagents, and various solid sorbents.



Amine-based systems are the subject of intense study for utility application. However, amine-based reagents are in the early stages of development for use in electric generating units. (Note: These other amine compounds, dry sorbents, and ammonia, as well as special-purpose compounds, are presently being developed with U.S. Department of Energy's [DOE's] National Energy Technology Laboratory [NETL] and private industry funding.) The amount of energy required to regenerate CO<sub>2</sub> presents a challenge to commercial viability of such processes. In addition, these reagents are negatively affected by exposure to compounds found in flue gas, such as oxygen and trace concentrations (10 to 20 ppm) of SO<sub>2</sub>, and NO<sub>x</sub>.

# Table 5-4. Partial List of Completed/In-Progress Post-combustion CO<sub>2</sub> Pilot Plant and Demonstration Tests

Commercial Supplier	Reagent	Location	Experience		
Alstom	Advanced amine technology	Dow Chemical, S. Charleston, West Virginia	2-MW pilot plant started in September 2009 for two-year term		
Alstom	Ammonia (chilled)	AEP Mountaineer Plant, New Haven, West Virginia	30-MW unit operated from September 2009 through May 2011		
Alstom	Ammonia (chilled)	Karlshamn, Sweden	5-MW unit operated from April 2009 through at least April 2010		
Siemens	Amino acid	E. On Staudinger Facility, Germany	1-MW pilot plant operating since September 2009		
Mitsubishi Heavy Industries	Advanced amine technology	Plant Barry, Mobile, Alabama	25-MW demonstration of CO <sub>2</sub> capture (2011) and sequestration (2012)		
ADA-ES	Advanced amine sorbent technology	Plant Miller, Quinton, Alabama	1-MW demonstration of CO <sub>2</sub> capture (2014)		
Mitsubishi Hitachi Power Systems	Amine	Boundary Dam, Estevan, Saskatchewan, Canada	298-MW test facility; construction (2013), operation (June 2015)		
Mitsubishi Heavy Industries and KEPCO	Advanced amine technology	Plant W.A. Parish, Houston, Texas	240 MW slip stream demonstration of CO2 capture and sequestration, operation (January 2017)		

Source: ECT, 2023.



Several suppliers are developing amine-based systems for utility application by extrapolating designs from small-scale industrial applications. Table 5-4 presents a partial summary of projects either completed or in progress that entail testing of pilot plant and demonstration equipment.

Monoethanolamine-based processes are being evaluated, including the Fluor ECONAMINE FG+ process, which uses a special inhibitor to resist corrosion and degradation from the oxygen. Alstom is exploring an amine-based process with Dow Chemical Company. Also, as shown in Table 5-4, Mitsubishi Heavy Industries is demonstrating a process using proprietary KS-1, developed by Mitsubishi and Kansai Electric Power Company.

Amine-based processes are not the only post-combustion CO<sub>2</sub> capture option. Siemens is developing an amino acid-based process (Jockenhoevel, 2008), and Alstom is demonstrating an ammonia-based process. Furthermore, amine-based processes do not necessarily have to use a liquid amine. ADA-ES, Inc., has demonstrated a post-combustion carbon capture process that uses a solid amine-based sorbent. Alabama Power Plant Miller served as the host site for this project.

## CO<sub>2</sub> Compression and Transport

After CO<sub>2</sub> is captured, it must be compressed "from near atmospheric pressure to a pressure between 1,500 and 2,200 psia in order to be transported via pipeline and then injected into an underground storage site" (DOE, 2010). Compressing CO<sub>2</sub> is energy-intensive and expensive. DOE's NETL is working to develop concepts for large-scale CO<sub>2</sub> compression that will reduce the auxiliary power requirements and capital cost. NETL is evaluating various compression concepts using computational fluid dynamics and laboratory testing that will lead to developing prototypes and field testing. Their research efforts include "development of intra-stage versus inter-stage cooling, fundamental thermodynamic studies to determine whether compression based on supersonic shock wave technology" (DOE, 2015). However, that technology has never before been applied to the exhaust stream of an operating simple cycle combustion turbine like those proposed for CERC, and no such application is expected in the near future. As a result, compression will continue to represent a significant technical and economic challenge for applying CCS, particularly at simple cycle turbine facilities.



Some pipelines exist today that transport supercritical CO<sub>2</sub>. Since the 1970s, CO<sub>2</sub> has been transported in pipelines to oil fields for use in enhanced oil recovery (EOR). However, since CERC is not located near an existing CO<sub>2</sub> pipeline, a CO<sub>2</sub> pipeline would need to be constructed to reach the nearest suitable storage site. Based on the Virginia Department of Mines, Minerals and Energy, the nearest potentially suitable site for underground storage of compressed CO<sub>2</sub> appears to be the Richmond Mesozoic Basin approximately 20 miles west of the site. Numerous logistical hurdles will exist, and EPA has recognized that permitting authorities may consider such hurdles in concluding that CCS is not applicable to a particular source. EPA's guidance also recognizes that cost of transport alone can be cost prohibitive. EPA's PSD and Title V Permitting Guidance for Greenhouse Gases, at 36, 42 (Mar. 2011) (Logistical hurdles for CCS may include obtaining contracts for offsite land acquisition (including the availability of land), the need for funding (including, for example, government subsidies), timing of available transportation infrastructure, and developing a site for secure long term storage. ... Based on these considerations, a permitting authority may conclude that CCS is not applicable to a particular source, and consequently not technically feasible ... [W]hen evaluating the cost effectiveness of CCS as a GHG control option, if the cost of building a new pipeline to transport the  $CO_2$  is extraordinarily high and by itself would be considered cost prohibitive, it would not be necessary for the applicant to obtain a vendor quote and evaluate the cost effectiveness of a CO<sub>2</sub> capture system.").

## **CO<sub>2</sub> Sequestration**

CO<sub>2</sub> sequestration is the third step of the CCS process. It is the injection and long-term storage of CO<sub>2</sub> in geologic formations, such as deep saline reservoirs, oil and gas reservoirs, and unmineable coal seams. These are geologic structures that have stored crude oil, natural gas, brine, and geologic CO<sub>2</sub> over millions of years. Domestically, only one coal-fired power plant has commercial-scale experience in sequestering CO<sub>2</sub>—the Petra Nova project in Texas—and that experience is limited, as noted above. Internationally, the SaskPower Boundary Dam Power Station is the only commercialscale electric generating unit that has limited CO<sub>2</sub> sequestration operating experience. The Boundary Dam Power Station's operating experience, however, has reported capacity issues and its economic viability is questionable—despite receiving significant government funding, EPA has reported that the Canadian Parliamentary Budget Office concluded that the project doubled the cost of the electricity it produced. Both projects were dependent on obtaining revenue from the CO<sub>2</sub> for EOR.



*Saline Formations*—DOE has estimated the United States could potentially store more than 12 trillion tons of CO<sub>2</sub> in deep saline formations. Sustained injection operations and monitoring of CO<sub>2</sub> in saline formations (DOE, 2016a) in the United States has not progressed beyond the research and development phase. In Algeria and the North Sea, commercial-scale CO<sub>2</sub> sequestration is taking place but not with CO<sub>2</sub> captured from a power plant. Table 5-5 lists various saline sequestration projects around the world.

Owner/Operator	Location	Amount Sequestered		
In-Salah (a joint venture of Sonartrach, BP, and Statoil)	Algeria in North Africa	1 million tons per year since 2004 <u>Source</u> : natural gas upgrading operations		
Statoil (Norwegian oil company)	Utsira Sand, saline formation under the North Sea associated with the Sleipner West Heimedel gas reservoir	Approximately 1 million tpy; equivalent to the output of a 150-MW coal-fired power plant <u>Source</u> : natural gas upgrading operations		
Southeast Regional Carbon Sequestration Partnership	Cranfield storage site in Mississippi	Approximately 100,000 tons per month (more than 6.6 million tons since 2010) <u>Source</u> : Jackson Dome geologic source		
Midwest Regional Carbon Sequestration Partnership	Mount Simon Sandstone formation in Illinois	Approximately 9,490,000 tons since 2011 <u>Source</u> : ethanol plant		
Shell Canada, Chevron Canada and Marathon Oil Sands	Fort Saskatchewan, Alberta, Canada	Approximately 1 million tpy, beginning November 2016 <u>Source</u> : hydrogen plant		
NRG Energy and JX Nippon Oil & Gas	Petra Nova Plant Thompsons, Texas	Approximately 1.4 million tpy for EOR <u>Source</u> : 250 Mw slip stream from 610 MW coal fired Unit 8		

## Table 5-5. Commercial-Scale Injection Projects

Source: ECT, 2023.

*Oil and Gas Reservoirs*—For years, CO<sub>2</sub> has been used in EOR and enhanced gas recovery. In this process, CO<sub>2</sub> is pumped into an oil or gas reservoir to push out the product. During this process,



some CO<sub>2</sub> is trapped in the reservoir. The United States is the world leader in EOR technology and uses more than two billion cubic feet of CO<sub>2</sub> for this purpose (DOE, 2016b). The CO<sub>2</sub> used in EOR operations has historically been from the steady-state production of natural geologic deposits and not from CO<sub>2</sub> captured at power plants. EOR operations can be affected by the variability and purity of the CO<sub>2</sub> sourced by power plants. EOR is not available in all areas of the United States.

**Coal Seams**—Coal seams (a.k.a., coal beds) contain large amounts of methane-rich gas that can be recovered by depressurizing the seam, which can be done by injecting CO<sub>2</sub> into the formation. According to DOE, tests have shown the adsorption rate for CO<sub>2</sub> to be twice that of methane, "giving it the potential to efficiently displace methane and remain stored in the bed." However, DOE also acknowledges that the "CO<sub>2</sub> recovery of coal-bed methane has been demonstrated in limited field tests, but much more work is necessary to understand and optimize the process" (DOE, 2016a).

#### Integration

CO<sub>2</sub> capture, transport, and sequestration have not been integrated domestically at commercial scale on a power plant and have limited international operating experience. Notably, the Petra Nova project in Texas is not integrated—it requires a separate, dedicated 75 MWe gas-fired power plant to provide the energy needed to operate the CCS system, even for the limited application to the slipstream from one coal-fired unit. The difficulties associated with integration of these processes on a power plant are also apparent in the experience of the SaskPower Boundary Dam Power Station and the failure of the Kemper County IGCC project in Mississippi that is now operating as a natural gas fired plant.

Problems with integration could result from load fluctuations, outages, and CO<sub>2</sub> purity. Also, the reliability of the host-generating unit could be affected by problems associated with the CCS processes:

• <u>Loading</u>—Power plants do not run consistently; their load fluctuates as needed to meet electricity demand, which may affect the CCS equipment. EOR operations historically have been supplied with CO<sub>2</sub> from some steady source, such as a natural geologic deposit of CO<sub>2</sub> or from a natural gas purification process. The knowledge available on CO<sub>2</sub> sequestration is mostly from EOR operations. Therefore, it is



unknown how the processes of  $CO_2$  sequestration could be impacted by inconsistent  $CO_2$  flow.

- <u>Outages</u>—Power plants experience planned and forced outages. During these outages, the CCS processes would be suspended. It is unknown how this suspension will affect the injection operations and equipment.
- <u>CO<sub>2</sub> Purity</u>—CO<sub>2</sub> from power plants may not be the same as CO<sub>2</sub> produced from natural geologic deposits or from natural gas purification processes. It is unknown how CO<sub>2</sub> streams of varying purity will be able to be integrated into the same pipeline network.
- <u>Reliability</u>—Reliability of a CCS system, including the host power plant, could be affected by problems arising in each CCS process. Because CO<sub>2</sub> capture, transport, and sequestration have not been domestically integrated at a commercial scale power plant before and have limited international operating experience, it is unknown how the three processes will interact with each other. For example, it is unknown how problems at the capture unit will affect the injection and sequestration operations. Furthermore, if the capture unit goes down and the CO<sub>2</sub> injection process stops, there could be implications to the geologic sequestration formation. If CO<sub>2</sub> cannot be injected, the host power plant may also not be able to run unless it is able to emit its CO<sub>2</sub> emissions while the problems in the CCS processes are addressed. Problems in one CCS process will likely affect the operations of another process and thus impact the reliability of the system and potentially the ability of the host power plant to operate.

## **CCS Legal Issues**

There are legal issues associated with CCS that need to be addressed before CCS can be considered feasible. These issues include pore-space ownership, long-term liability, and CO<sub>2</sub> pipeline-related issues. Some states have enacted laws governing these issues, but they vary. This problem is most significant for projects that operate in states without such laws and for projects that cover multiple states.

Also, CCS is different from other control technologies because, if required for compliance, responsibility may need to be shared between multiple parties, not just the power plant owner/operator. For example, if EOR is used to sequester CO<sub>2</sub>, the power generator will likely have



to enter into a contract with a third party to transport the  $CO_2$  and demonstrate sequestration. Such arrangements, in which the power plant is dependent on a third party for compliance, present risks of contract breeches, dissolution of the contract parties, or other issues that cannot be foreseen that could put the ability of the power plant to meet electricity demand at risk.

## **CCS Conclusion**

As discussed in previous sections, CCS has the potential to reduce CO<sub>2</sub> emissions through postcombustion control technology but currently, it has seen limited and troubled demonstrations on power plants for controlling CO<sub>2</sub> emissions. Additionally, EPA did not determine CCS to be BSER for low- or intermediate-load CTs. Therefore, it will not be considered further in this BACT analysis. Progress needs to be made on each step of the CCS process to ensure it will work reliably and continuously on a commercial scale with the characteristics of a low- to intermediate-load power plant across a range of operating conditions. To date the integration of the CCS processes on a domestic commercial-scale power plant has yet to be accomplished.

## <u>Clean Fuels</u>

The CAA includes clean fuels in the definition of BACT; therefore, clean fuels should be considered as a potential control technology for GHG emissions. Fuels that reduce GHG emissions of a new source should be considered in a BACT analysis provided they do not redefine the source.

The proposed CTs are capable of co-firing 10% H<sub>2</sub>, which is a proposed alternate fuel if an H<sub>2</sub> supply becomes available. Although proposed as an alternative fuel supply, the infrastructure currently is not available for natural gas-H<sub>2</sub> blended fuel and therefore it cannot be considered an "available" control technology for consideration as BACT. To be "available," the technology has to be demonstrated in practice and commercially available. *See* EPA's 1990 Draft New Source Review Workshop Manual at B.11. Likewise, co-firing 30% H<sub>2</sub> is currently unavailable, consistent with EPA's proposal where meeting the standard based on 30% H<sub>2</sub> co-firing is not required until 2032.

# 5.3.4.2 GHG BACT Technical Feasibility (Step 2)

Step 2 of the top-down BACT analysis is the elimination of technically infeasible options. A technology is considered to be technically feasible if, one, it has been demonstrated and operated successfully on the same type of source under review, or two, it is available and applicable to the source type under review. A control technology should also be considered technically available or



applicable if it has been demonstrated on an exhaust stream with similar physical and chemical characteristics.

As discussed previously, CCS is not considered technically feasible for the proposed natural gas-fired simple-cycle peaking project and, therefore, is not considered further in this BACT analysis. Although Dominion is proposing to fire natural gas blended with 10% H<sub>2</sub> as an alternative fuel supply, H<sub>2</sub> gas infrastructure is currently not available to require its usage as BACT.

### 5.3.4.3 GHG BACT Ranking of Controls (Step 3)

Step 3 of the top-down BACT analysis is the ranking of technically feasible options.

Because it has been demonstrated that neither CCS nor H<sub>2</sub> gas are technically feasible as defined by BACT, the remaining technically feasible options include high thermal or energy efficiency. The energy efficiency must look at the high thermal efficiency design of the SCCTs as well as various energy efficiency improvements throughout the facility, as described in the previous section.

#### 5.3.4.4 Economic, Energy, and Environmental Impacts (Step 4)

Step 4 of the top-down BACT analysis is the consideration of economic, energy, and environmental impacts.

The project is committed to using thermal and energy efficiency designs, practices and procedures described above, along with the combustion of low carbon fuels to reduce GHG emissions. Therefore, no further analysis of economic, energy, or environmental impacts is necessary.

## 5.3.4.5 GHG BACT Selection (Step 5)

#### Selection of BACT

Step 5 of the top-down BACT analysis is the selection of BACT. Dominion proposes as BACT for GHG the following energy efficiency designs, practices, and procedures for the proposed facility:

- Efficient turbine design.
- Turbine inlet air cooling.
- Periodic turbine burner tuning.



- Reduction in heat loss, i.e., insulation of the CT.
- Instrumentation and controls.

## **Proposed GHG BACT Emissions Limit for the SCCTs**

Dominion proposes an annual GHG BACT emissions limit of 548,693 tpy (expressed as CO<sub>2</sub>e) for each SCCT as GHG BACT for all operating cases, including during periods of startup and shutdown based on a 12-month rolling average.

This numerical GHG BACT emissions limit is based on energy efficiency designs, practices, and procedures for the proposed facility and the use of natural gas, H<sub>2</sub> fuel blend or fuel oil. Compliance with this numerical GHG BACT emissions limit will be demonstrated by measuring and recording the total heat input to the SCCTs expressed in million British thermal units per year for natural gas, H<sub>2</sub> fuel blend and fuel oil. CO<sub>2</sub> emissions will be calculated using the methodology for calculating CO<sub>2</sub> emissions under the ARP in accordance with 40 CFR 75, Equation G-4, as described in the following:

$$W_{CO_2} = \frac{F_c \times H \times U_f \times MW_{CO_2}}{2,000}$$

where:

 $W_{CO_2}$  = CO<sub>2</sub> emissions in tpy.

 $F_c$  = carbon based F-factor (1,040 standard cubic feet per million British thermal units [scf/MMBtu] for natural gas, 1,420 scf/MMBtu for fuel oil and procedures in section 3.3.6 of 40 CFR 75 Appendix F for H<sub>2</sub> fuel blend).

*H* = heat input in million British thermal units per year.

$$U_f = \frac{1}{385}$$
 standard cubic foot per pound-mole (scf/lb-mol) of CO<sub>2</sub> at 14.7 psia and 68°F.

$$MW_{CO_2}$$
 = molecular weight of CO<sub>2</sub>, 44 pounds per pound-mole (lb/lbmol).

Methane and nitrous oxide emissions will be calculated using emissions factors as defined in the Mandatory Greenhouse Gas Reporting Rule, 40 CFR Part 98, Table C-2. CO<sub>2</sub>e emissions will then be calculated using each GHG pollutant's respective GWP as defined in the Mandatory Greenhouse Gas Reporting Rule, Table A-1.



The proposed General Electric 7FA.05 simple-cycle combustion turbine combusting natural gas, H<sub>2</sub> fuel blend and fuel oil, can operate throughout a wide range of turbine loads and still maintain emissions compliance. While this provides the facility with needed operational flexibility to operate at various turbine loads, the heat rates of the units and thus the CO<sub>2</sub> emission rate in units of lb CO<sub>2</sub>/MWh, will vary considerably throughout this wide range of turbine loads (e.g., CO<sub>2</sub> emission rates when firing natural gas range from 1,161 to 1,965 lb/MWh).

The CERC SCCTs are being designed with a capacity factor of approximately 37% and have limited the annual average hours of normal operation to 3,240 hours per year per SCCT. The CERC SCCTs will operate in response to energy demand and thus, these 3,240 hours per year of normal operation can occur at any ambient temperature, at any turbine load and with or without the use of evaporative cooling. Since heat rates vary considerably over the wide range of operating cases, it is extremely speculative to estimate a single heat rate or lb CO<sub>2</sub>/MWh emission rate value, with an appropriate averaging period, for the CERC SCCTs.

Thus, in addition to the annual BACT limit proposed above, Dominion also proposes a GHG BACT emission limit of 120 lb CO<sub>2</sub> per MMBtu heat input when combusting natural gas (or hydrogen blend) for more than 90% on a heat input basis and 120 to 160 lb CO<sub>2</sub> per MMBtu heat input when combusting natural gas less than 90% on a heat input basis. These GHG BACT emission limits are based on using clean fuels and are consistent with NSPS Subpart TTTT and other recent GHG permit determinations.

The fuel flow will also be monitored during startup and shutdown events. GHG emissions will be calculated based on the measured fuel flow and ARP procedures described previously in accordance with 40 CFR 75, Equation G-4. Methane and nitrous oxide emissions will be calculated using emissions factors as defined in the Mandatory Greenhouse Gas Reporting Rule, Table C-2. CO<sub>2</sub>e emissions will then be calculated using each GHG pollutant's respective GWP as defined in the Mandatory Greenhouse Gas Reporting startup and shutdown events will be included in the total GHG emissions of 2,213,100 tpy for the proposed SCCT project.



# 5.3.5 BACT for VOC Emissions

# 5.3.5.1 Available VOC Control Technologies (Step 1)

VOC emissions from CTs are a function of incomplete combustion, comparable to CO emissions. As such, the control options applicable to the two pollutants are the same: good combustor/burner design and oxidation catalyst controls.

# 5.3.5.2 VOC BACT Technical Feasibility (Steps 2 and 3)

Both CT combustor/burner design and oxidation catalyst control systems are considered to be technically feasible for the proposed SCCTs. As with CO, no reductions in VOC emissions are expected during SU/SD events when evaluating an oxidation catalyst. The exhaust gas temperature during SU/SD is not expected to be in the optimal temperature range of the oxidation catalyst for VOC removal.

# 5.3.5.3 Energy, Environmental and Economic Impacts (Step 4)

There are no significant adverse energy or environmental impacts associated with the use of good combustor designs and good combustion practices to minimize VOC emissions. The use of oxidation catalyst will result in increased H<sub>2</sub>SO<sub>4</sub> mist and salt emissions if applied to combustion devices fired with fuels containing appreciable amounts of sulfur. The proposed CTs will combust fuels with very low sulfur content (natural gas, H2 blend, ultra-low sulfur fuel oil); therefore, H<sub>2</sub>SO<sub>4</sub> mist emissions will be limited.

Dominion is proposing to install oxidation catalyst along with advanced combustor design for VOC BACT. This represents the most-effective control technology identified; therefore, an economic impact analysis is not required. In addition, this approach will reduce emissions of CO and formaldehyde. Controlling formaldehyde emissions is necessary to comply with the applicable limits in 40 CFR 63 Subpart YYYY.

## 5.3.5.4 Proposed VOC BACT Emissions Limit (Step 5)

To determine the most stringent VOC emissions limit, EPA's RBLC database was queried for simplecycle combustion turbines larger than 25 MWe. Determinations were obtained when combusting natural gas over the past 10 years and are summarized in Appendix C, Tables C-3 and C-10.



The results of the RBLC database search show that the VOC determinations ranged from 0.7 to 2.0 ppmvd at 15% O<sub>2</sub> (natural gas) including several VOC BACT determinations for frame type combustion turbines. These emission limits were achieved by employing good combustion practices with or without the use of an oxidation catalyst. Only two determinations below 1 ppmvd were identified: Cricket Point Energy in New York and Cove Point LNG Terminal in Maryland. Both of these determinations were listed as SCCTs; however, the projects actually involved installation of combined-cycle units. In addition, the projects both represented LAER and relied upon good combustion practices and oxidation catalysts.

The lowest VOC determination for a simple cycle CT combusting fuel oil is a LAER determination of 2 ppmvd @  $15\% O_2$  and is based on installation of an oxidation catalyst.

As shown in Table 5-6, the proposed VOC BACT emissions limit for the SCCTs is 1.0 ppmvd at 15 percent oxygen (three-hour average) for natural gas normal operating cases, including the H<sub>2</sub> fuel blend cases, and 2 ppmvd at 15% O<sub>2</sub> for fuel oil normal operating cases. These proposed BACT limits exclude periods of startup and shutdown. These proposed VOC emissions limits are consistent with the lowest VOC BACT determinations for simple cycle combustion turbine facilities.

# Table 5-6. Proposed VOC BACT Emissions Limit for SCCTs

Emissions Source	Proposed VOC BACT Emissions Limits, Three-Hour Average		
Natural gas-firing	1.0 ppmvd*		
H <sub>2</sub> fuel blend-firing	1.0 ppmvd*		
fuel oil-firing	2 ppmvd*		

\*Corrected to 15-percent oxygen gas.

Source: Dominion, 2023.

# 5.3.6 BACT for SO<sub>2</sub> and H<sub>2</sub>SO<sub>4</sub> Emissions

# 5.3.6.1 <u>Available SO<sub>2</sub> Control Technologies (Step 1)</u>

Emissions of SO<sub>2</sub> from CTs directly correlate to the sulfur content of the fuel. Therefore, the primary method to control SO<sub>2</sub> emissions is the use of low sulfur fuels.



 $H_2SO_4$  is generated when  $SO_2$  is oxidized to  $SO_3$ , which then combines with water to form the acid. Therefore, the first step in limiting  $H_2SO_4$  emissions is to limit the formation of  $SO_2$ . Once again, this is accomplished through the use of low sulfur fuels.

Both SO<sub>2</sub> and H<sub>2</sub>SO<sub>4</sub> are sometimes controlled in industrial applications using scrubber technology. Wet scrubbers remove pollutants by contacting the gas stream with an absorbent liquid. However, as described in Section 5.3.3, scrubbers are generally less effective at higher exhaust temperatures, higher exhaust flowrates, and lower pollutant loading concentrations.

## 5.3.6.2 <u>SO<sub>2</sub>/H<sub>2</sub>SO<sub>4</sub> BACT Technical Feasibility (Steps 2 and 3)</u>

There are no post-combustion control systems that are technically feasible to control SO<sub>2</sub> or H<sub>2</sub>SO<sub>4</sub> emissions from SCCTs. Scrubbers are not suited for CTs firing gaseous fuels or low-sulfur fuel oil because of the high exhaust temperature, high exhaust flowrate, and very low concentrations of SO<sub>2</sub> and H<sub>2</sub>SO<sub>4</sub>, which is why they have not been deployed on CTs. Use of low-sulfur natural gas or fuel oil is technically feasible.

## 5.3.6.3 **Proposed SO<sub>2</sub>/H<sub>2</sub>SO<sub>4</sub> BACT Emissions Limit (Steps 4 and 5)**

The results of the RBLC database search for SCCTs show that there are no BACT determinations for SO<sub>2</sub> or H<sub>2</sub>SO<sub>4</sub> expressed as a numerical emission limit, and the only BACT determinations are limits on the sulfur content of the fuel. The majority of the BACT determinations list use of low-sulfur natural gas or fuel oil as the control method.

Dominion proposes the use of clean fuels which includes the use of pipeline quality natural gas, H<sub>2</sub> fuel blend, and low sulfur fuel oil in the SCCTs as BACT for SO<sub>2</sub> and H<sub>2</sub>SO<sub>4</sub>.

# 5.4 Startup/Shutdown BACT Analysis

BACT must be met under all operating scenarios, including during periods of startup and shutdown. Pollutants subject to BACT analysis and review must address BACT emissions limits not only during normal operation but also during startup and shutdown.

NO<sub>x</sub>, CO, and VOC emissions are expected to have higher hourly emissions rates during periods of startup and shutdown. Dominion has proposed to install SCR and oxidation catalyst as BACT during



normal operations; however, these post combustion controls will not be effective during startup and shutdown since the control systems and the exhaust gas will not be at the optimal temperature for emission reductions.

The normal operation BACT limits for other pollutants, such as PM/PM<sub>10</sub>/PM<sub>2.5</sub>, SO<sub>2</sub>, H<sub>2</sub>SO<sub>4</sub>, and GHGs can be met during startup and shutdown periods because their emissions are directly proportional to the amount of fuel flow, which is less during those periods.

Dominion proposes the BACT emissions limits provided in Table 5-7 for NO<sub>x</sub>, CO, and VOC during startup and shutdown events on natural gas or fuel oil. The proposed CERC SCCTs will not startup or shutdown on H<sub>2</sub> fuel blend. These emissions will be accounted for during each startup and shutdown event when calculating monthly and annual NO<sub>x</sub>, CO, and VOC emissions. The proposed CERC SCCTs will not startup or shutdown on H<sub>2</sub> fuel blend.

	Natural Gas				Fuel Oil			
	Startup*		Shutdown		Startup		Shutdown	
Pollutant	Emissions (lb/event)	Duration (minutes)	Emissions (lb/event)	Duration (minutes)	Emissions (lb/event)	Duration (minutes)	Emissions (lb/event)	Duration (minutes)
NOx	52	30	20	15	143	30	62	15
CO	366	30	152	15	1,036	30	246	15
VOC	65	30	31	15	101	30	47	15

## Table 5-7. Proposed BACT Emissions Limits during Startup and Shutdown

\* Natural gas only

Source: General Electric; 2023.

# 5.5 LLE Mode BACT Analysis

BACT must also be met during periods of LLE mode operation.

NO<sub>x</sub>, CO, and VOC emissions are expected to have higher hourly emissions rates during periods of LLE mode operation as compared to normal operation. This is due to these pollutants being the products of incomplete combustion, which is more prevalent during periods of low load operation. Even if NO<sub>x</sub>, CO, and VOC emissions potential post combustion controls were used during low load operation, they would not be effective because the exhaust gas flow rate and temperature will not



be at the optimal design points for emission reductions. In addition, although the exhaust flow rate may be much lower, emission concentrations of certain pollutants can be significantly higher during low load operations, and it is uncertain what effect this may have on potential fouling of the catalysts in the post combustion control systems. Other pollutants, such as PM/PM<sub>10</sub>/PM<sub>2.5</sub>, SO<sub>2</sub>, H<sub>2</sub>SO<sub>4</sub>, and GHGs tend to have lower emissions during low load operations, as these emissions are directly proportional to the amount of fuel flow.

Dominion proposes the following work practices as BACT for the SCCTs operating in LLE mode:

- Good combustion practices
- Use of clean fuels, i.e., natural gas, fuel oil.
- Limited hours of operation during black start emergencies only and annual testing.

# 5.6 <u>Emergency Diesel Generators and Firewater Pump BACT Analysis</u>

## 5.6.1 BACT for NO<sub>x</sub>

As with combustion turbines, NO<sub>x</sub> emissions from internal combustion engines consist of two components: oxidation of combustion air atmospheric nitrogen (thermal NO<sub>x</sub> and prompt NO<sub>x</sub>) and conversion of fuel bound nitrogen (FBN), also referred to as fuel NO<sub>x</sub>. As such, NOx emissions can be controlled through careful design and operation of the engine or through add-on controls.

Many engine designs are on the market that utilize automated engine controls to maintain the combustion conditions necessary to balance emissions of NOx, CO and unburned hydrocarbons. These combustion control systems have been tested and refined to the point that manufacturers now offer emissions guarantees and certifications that their engines comply with emissions limitations in NSPS Subpart IIII and NESHAP Subpart ZZZZ. The emission rates are guaranteed as long as the owner/operator follows the manufacturer's written instructions for that engine.

Other engines (generally older, retrofit units) are equipped with less sophisticated combustion control systems and rely upon post-combustion controls to limit emissions. Engines can be fitted with a 3-way catalyst, similar to a car's catalytic converter, to simultaneously reduce emissions of NOx, CO and VOCs. Engines can also be fitted with separate SCR and catalytic oxidation systems or utilize non-catalytic urea injection (non-catalytic selective reduction) to reduce NOx emissions.



These post-combustion controls are best suited for steady-state operations as they all rely upon exhaust conditions in a set temperature range and flow to achieve their design control efficiency. Rapid or frequent temperature changes stress the catalyst and reduce it useful life. Operation below the design temperature range does not result in effective pollutant destruction.

Results of the RBLC database search are presented in Tables C-14 for the emergency generators and firewater pump. Only one engine was identified using post-combustion controls (AK-0084, Donlin Gold Project). That determination was for twelve, large, continuously operated IC engines. The same project implemented good combustion practices (without post-combustion controls) for the emergency generator on site. All the remaining RBLC determinations for emergency engines rely upon combustion controls and require compliance with the emissions limits and work practices of NSPS Subpart IIII.

The proposed 3,500-kWe emergency generator engines at CERC will meet the emissions limits and work practices of NSPS Subpart IIII through combustion controls. As specified in 40 CFR 60.4202(b) the emergency engines are required to meet the Tier 2 standards provided in 40 CFR 1039, Appendix I, Table 2. The combined non-methane hydrocarbons (NMHC) + NO<sub>x</sub> emission limit is 6.4 g/kW-hr. In addition, work practices include the exclusive use of fuel oil and a limit on the annual hours of non-emergency operation, including for routine maintenance and testing, to 100 hours/yr. The proposed NO<sub>x</sub> BACT for the emergency generators is 6.4 g/kW-hr for NHMC + NO<sub>x</sub>, exclusive use of fuel oil and a limit of 100 hr/yr for non-emergency operation, including routine maintenance and testing. Compliance will be demonstrated by purchasing an EPA-certified engine and recordkeeping.

The 190-hp firewater pump engine will meet the emissions limits and work practices of NSPS Subpart IIII. The emission limits of NSPS Subpart IIII for the emergency firewater pump are listed in Table 4 to Subpart IIII. The combined NMHC + NO<sub>x</sub> emission limit is 4.0 g/kW-hr (3.0 g/bhp-hr). In addition, work practices include the exclusive use of fuel oil and a limit on the annual hours of nonemergency operation, including for routine maintenance and testing, to 100 hours/yr. The proposed NO<sub>x</sub> BACT for the firewater pump engine is 4.0 g/kW-hr for NHMC + NO<sub>x</sub>, exclusive use of fuel oil and a limit of 100 hr/yr for non-emergency operation, including routine maintenance and testing. Compliance will be demonstrated by purchasing an EPA-certified engine and recordkeeping.



# 5.6.2 BACT for CO

# 5.6.2.1 Available CO Control Technologies and Technical Feasibility (Steps 1, 2 and 3)

As with the SCCTs. CO emissions from the emergency generators and firewater pump are the result of incomplete combustion.

Results of the RBLC database search are presented in Tables C-15 for the emergency generators and firewater pump. The methods identified are generally summarized as follows, all of which are available and technically feasible for the emergency generators and firewater pump:

- The use of clean fuel (fuel oil) and good combustion practices
- Limited hours of operation
- Compliance with NSPS IIII
- Use of EPA certified engines

As with NOx emissions from emergency engines, it is theoretically possible to install postcombustion controls to reduce CO emissions. However, combustion controls have advanced to the point that CO emissions are minimal. In addition, variable operating conditions and extended periods of downtime reduce the control efficiency and catalyst life associated with more postcombustion control systems. Oxidation catalysts are particularly dependent on high exhaust temperatures for effective emissions reductions. Emergency engines are unlikely to maintain the required high temperatures due to the variable nature of emergency operations. As such, postcombustion controls are not considered technically feasible in emergency engine applications.

# 5.6.2.2 Energy, Environmental and Economic Impacts (Step 4)

All of the technically feasible controls identified will be used by the Project. There are no potential adverse energy, environmental, or economic impacts that would preclude the use of any of these control methods.

## 5.6.2.3 Proposed CO BACT Emission Limits (Step 5)

The 3,500-kWe emergency generator engines will meet the emissions limits and work practices of NSPS Subpart IIII. The emission limits of NSPS Subpart IIII for the emergency generators are listed in 40 CFR 1039, Appendix I. The CO emission limit is 3.5 g/kW-hr. In addition, work practices include the exclusive use of fuel oil and a limit on the annual hours of non-emergency operation, including for



routine maintenance and testing, to 100 hours/yr. The proposed CO BACT for the emergency generators is 3.5 g/kW-hr, exclusive use of fuel oil and a limit of 100 hr/yr for non-emergency operation, including routine maintenance and testing. Compliance will be demonstrated by purchasing an EPA-certified engine and recordkeeping.

The 190-hp firewater pump engine will meet the emissions limits and work practices of NSPS Subpart IIII. The emission limits of NSPS Subpart IIII for the emergency firewater pump are listed in Table 4 to Subpart IIII. The CO emissions limit is 3.5 g/kW-hr (2.6 g/bhp-hr). In addition, work practices include the exclusive use of fuel oil and a limit on the annual hours of non-emergency operation, including for routine maintenance and testing to 100 hours/yr. The proposed CO BACT for the firewater pump engine is 3.5 g/kW-hr, exclusive use of fuel oil and a limit of 100 hr/yr for non-emergency operation, including routine maintenance and testing. Compliance will be demonstrated by purchasing an EPA-certified engine and recordkeeping.

# 5.6.3 BACT for PM/PM<sub>10</sub>/PM<sub>2.5</sub>

# 5.6.3.1 <u>Available PM/PM<sub>10</sub>/PM<sub>2.5</sub> Control Technologies and Technical Feasibility (Steps 1, 2 and 3)</u>

Combustion of diesel fuel in the emergency generator engines will result in emissions of PM/PM<sub>10</sub>/PM<sub>2.5</sub>. Results of the RBLC database search are presented in Table C-16 for the emergency generators and firewater pump. The methods identified are generally summarized as follows, all of which are available and technically feasible for the emergency generators and firewater pump:

- The use of clean fuel (fuel oil) and good combustion practices
- Limited hours of operation
- Compliance with NSPS IIII
- Use of EPA certified engines

Typical add-on controls for particulate matter are not feasible for use on IC engines due to the high temperature of the exhaust, as well as the variability associated with emergency equipment.



#### 5.6.3.2 Energy, Environmental and Economic Impacts (Step 4)

All of the technically feasible controls identified will be used by the Project. There are no potential adverse energy, environmental, or economic impacts that would preclude the use of any of these control methods.

#### 5.6.3.3 <u>Proposed PM/PM<sub>10</sub>/PM<sub>2.5</sub> BACT Emission Limits (Step 5)</u>

The 3,500-kWe emergency generator engines will meet the emissions limits and work practices of NSPS Subpart III. The emission limits of NSPS Subpart IIII for the emergency generators are listed in 40 CFR 1039, Appendix I. The PM emission limit (filterable only) is 0.20 g/kW-hr. In addition, work practices include the exclusive use of fuel oil and a limit on the annual hours of non-emergency operation, including for routine maintenance and testing, to 100 hours/yr. The proposed PM<sub>10</sub>/PM<sub>2.5</sub> BACT for the emergency generators is 0.23 g/kW-hr (filterable plus condensable), exclusive use of fuel oil and a limit of 100 hr/yr for non-emergency operation, including routine maintenance and testing. Compliance will be demonstrated by purchasing an EPA-certified engine and recordkeeping.

The 190-hp firewater pump engine will meet the emission limits and work practices of NSPS Subpart IIII. The emission limits of NSPS Subpart IIII for the emergency firewater pump are listed in Table 4 to Subpart IIII. The PM emission limit (filterable only) is 0.20 g/kW-hr (0.15 g/bhp-hr). In addition, work practices include the exclusive use of fuel oil and a limit on the annual hours of nonemergency operation, including for routine maintenance and testing, to 100 hours/yr. The proposed PM<sub>10</sub>/PM<sub>2.5</sub> BACT for the firewater pump engine is 1.0 g/hp-hr (filterable plus condensable), exclusive use of fuel oil and a limit of 100 hr/yr for non-emergency operation, including routine maintenance and testing. Compliance will be demonstrated by purchasing an EPA-certified engine and recordkeeping.

# 5.6.4 BACT for GHG

## 5.6.4.1 Available GHG Control Technologies and Technical Feasibility (Steps 1, 2 and 3)

Combustion of diesel fuel in the emergency generator engines will result in emissions of GHG. The same methods identified for CO emissions from the emergency generators and fire pumps are available for controlling GHG emissions. No add-on controls are available to limit or reduce GHG emissions from diesel engines. Therefore, the only available methods are the use of clean fuels and good combustion practices. The proposed fuel oil is considered a low carbon fuel by EPA. In



addition, automated combustion controls installed on engines to comply with NSPS Subpart IIII maintain efficient operation and good combustion.

#### 5.6.4.2 Energy, Environmental and Economic Impacts (Step 4)

There are no potential adverse energy, environmental, or economic impacts that would preclude the use of clean fuels and good combustion practices.

#### 5.6.4.3 Proposed GHG BACT Emission Limits (Step 5)

The emergency generators and the firewater pump engines will meet the emission limits and work practices of NSPS Subpart IIII. There are no numerical emission limits for GHG emissions contained in the NSPS. Therefore, the proposed GHG BACT for the emergency generator engines and the firewater pump engine will be exclusive use of fuel oil, a limit on the annual hours of operation for routine maintenance and testing, and a total GHG emission limit (expressed as CO<sub>2</sub>e) of 2,213,100 tpy for the proposed SCCT project.

# 5.6.5 BACT for VOC

## 5.6.5.1 Available VOC Control Technologies and Technical Feasibility (Steps 1, 2 and 3)

Combustion of diesel fuel in the emergency generator engines will result in emissions of VOC. The same methods identified for CO emissions from the emergency generators and fire pumps are available for controlling CO emissions. As previously discussed regarding CO emissions, it is theoretically possible to install post-combustion controls to reduce VOC emissions. However, combustion controls have advanced to the point that VOC emissions from engines combusting fuel oil are minimal. In addition, variable operating conditions and extended periods of downtime reduce the control efficiency and catalyst life associated with more post-combustion control systems. Oxidation catalysts are particularly dependent on high exhaust temperatures for effective emissions reductions. Emergency engines are unlikely to maintain the required high temperatures due to the variable nature of emergency operations. As such, post-combustion controls are not considered technically feasible in emergency engine applications.

## 5.6.5.2 Energy, Environmental and Economic Impacts (Step 4)

All of the technically feasible controls identified will be used by the Project. There are no potential adverse energy, environmental, or economic impacts that would preclude the use of any of these control methods.



#### 5.6.5.3 Proposed VOC BACT Emission Limits (Step 5)

The 3,500-kWe emergency generator engines will meet the emissions limits and work practices of NSPS Subpart III. The emission limits of NSPS Subpart IIII for the emergency generator are listed in 40 CFR 1039. The combined non-methane hydrocarbons (NMHC) + NO<sub>x</sub> emission limit is 6.4 g/kW-hr. In addition, work practices include the exclusive use of fuel oil and a limit on the annual hours of non-emergency operation, including for routine maintenance and testing, to 100 hours/yr. The proposed VOC BACT for the emergency generators is 6.4 g/kW-hr for NHMC + NO<sub>x</sub>, exclusive use of fuel oil and a limit of 100 hr/yr for non-emergency operation, including routine maintenance and testing. Compliance will be demonstrated by purchasing an EPA-certified engine and recordkeeping.

The 190-hp firewater pump engine will meet the emission limits and work practices of NSPS Subpart IIII. The emission limits of NSPS Subpart IIII for the emergency firewater pump are listed in Table 4 to Subpart IIII. The combined NMHC + NO<sub>x</sub> emission limit is 4.0 g/kW-hr (3.0 g/bhp-hr). In addition, work practices include the exclusive use of fuel oil and a limit on the annual hours of nonemergency operation, including for routine maintenance and testing, to 100 hours/yr. The proposed VOC BACT for the firewater pump engine is 4.0 g/kW-hr for NHMC + NO<sub>x</sub>, exclusive use of fuel oil and a limit of 100 hr/yr for non-emergency operation, including routine maintenance and testing. Compliance will be demonstrated by purchasing an EPA-certified engine and recordkeeping.

## 5.6.6 BACT for SO<sub>2</sub> and H<sub>2</sub>SO<sub>4</sub>

SO<sub>2</sub> and H<sub>2</sub>SO<sub>4</sub> emissions are minimized through the use of clean fuels (fuel oil). Typical add-on controls for sulfur compounds are not feasible for use on IC engines due to the high temperature of the exhaust and low pollutant loading, as well as the variability associated with emergency equipment.

The emergency generator and the firewater pump engines will meet the emission limits and work practices of NSPS Subpart IIII. There are no numerical emission limits for SO<sub>2</sub> and H<sub>2</sub>SO<sub>4</sub> emissions contained in the NSPS. Therefore, the proposed SO<sub>2</sub>/H<sub>2</sub>SO<sub>4</sub> BACT for the emergency generator engines and the firewater pump engine will be exclusive use of fuel oil and a limit on the annual hours of operation for routine maintenance and testing.



# 5.7 Natural Gas Heater BACT Analysis

The proposed fuel gas heater is a natural gas-fired unit rated at 18.8 MMBtu/hr. In accordance with 9VAC5-80-1105 B.1.a.(4), natural gas-fired external combustion devices with a rated heat input of <50 MMBtu/hr are exempt from minor source NSR. For the sake of completeness, Dominion has provided a presumptive BACT analysis for the non-PSD pollutants.

# 5.7.1 BACT for NO<sub>x</sub>

Table C-21 contains the NO<sub>x</sub> BACT determination results of the RBLC database search for industrialsized boilers and furnaces less than 100 MMBtu/hr heat input firing natural gas only. The lowest NO<sub>x</sub> BACT determination for several other facilities is 0.011 lb/MMBtu using ultra-low NOx burners. Therefore, the proposed NO<sub>x</sub> BACT for the fuel gas heater for CPS is 0.011 lb/MMBtu based on exclusive use of natural gas.

# 5.7.2 BACT for CO

## 5.7.2.1 Available CO Control Technologies and Technical Feasibility (Steps 1, 2 and 3)

CO emissions are formed in combustion processes as a result of incomplete combustion of carbonaceous fuels. Similar to the generation of NO<sub>x</sub> emissions, the primary factors influencing the generation of CO emissions are temperature and residence time within the combustion zone. Table C-22 contains the CO BACT determination results of the RBLC database search for industrial-sized boilers and furnaces less than 100 MMBtu/hr heat input firing natural gas only. Available emission control techniques for CO are good combustion practices and oxidation catalysts. Oxidation catalysts, however, have not been used on pipeline heaters such as proposed.

## 5.7.2.2 Energy, Environmental and Economic Impacts (Step 4)

There are no potential adverse energy, environmental, or economic impacts that would preclude the use of good combustion practices.

#### 5.7.2.3 <u>Proposed CO BACT Emission Limits (Step 5)</u>

Good combustion practices are capable of limiting CO emissions to 0.037 lb/MMBtu, which is equivalent to 50 ppmvd at 3% O<sub>2</sub>, when firing natural gas. Data from the EPA shows that a typical CO BACT emission rate for natural gas-fired boilers/heaters less than 100 MMBtu/hr is in the 0.03 lb/MMBtu to 0.08 lb/MMBtu range. The CO BACT determination for fuel gas heaters at several



recently permitted facilities is 0.037 lb/MMBtu. Therefore, the proposed CO BACT for the fuel gas heater for CERC is 0.037 lb/MMBtu based on exclusive use of natural gas.

# 5.7.3 BACT for PM/PM<sub>10</sub>/PM<sub>2.5</sub>

# 5.7.3.1 <u>Available PM/PM<sub>10</sub>/PM<sub>2.5</sub> Control Technologies and Technical Feasibility (Steps 1, 2 and 3)</u>

Table C-25 contains the PM/PM<sub>10</sub>/PM<sub>2.5</sub> BACT determination results of the RBLC database search for industrial-sized boilers and furnaces less than 100 MMBtu/hr heat input firing natural gas only. The determinations listed are each based on good combustion practices using pipeline quality natural gas.

## 5.7.3.2 Energy, Environmental and Economic Impacts (Step 4)

Good combustion practices using pipeline quality natural gas will be used by the Project. There are no potential adverse energy, environmental, or economic impacts that would preclude the use of any of these control methods.

## 5.7.3.3 Proposed PM/PM<sub>10</sub>,/PM<sub>2.5</sub> BACT Emission Limits (Step 5)

PM<sub>10</sub>/PM<sub>2.5</sub> emission from the combustion of natural gas is highly dependent on the assumed sulfur content of the natural gas. Therefore, the proposed PM<sub>10</sub>/PM<sub>2.5</sub> BACT for the fuel gas heater for CERC is 0.007 lb/MMBtu based on exclusive use of natural gas. Since particulate emissions from the fuel gas heater are presumed to be less than 1 micron in size, and PM (filterable) would be a subset of the PM<sub>10</sub>/PM<sub>2.5</sub> (filterable plus condensable) emissions, a separate PM BACT limit is not proposed.

# 5.7.4 BACT for GHG

# 5.7.4.1 Available GHG Control Technologies and Technical Feasibility (Steps 1, 2 and 3)

The fuel gas heater will be fired exclusively with natural gas, which is the only technically feasible control for limiting GHG emissions. No add on controls have been used or demonstrated on sources like the fuel gas heaters.

# 5.7.4.2 Energy, Environmental and Economic Impacts (Step 4)

All of the technically feasible controls identified will be used by the Project. There are no potential adverse energy, environmental, or economic impacts that would preclude the use of any of these control methods.



#### 5.7.4.3 Proposed GHG BACT Emission Limits (Step 5)

The proposed GHG BACT for the fuel gas heater will be exclusive use of natural gas and a total GHG emission limit (expressed as CO<sub>2</sub>e) of 2,213,100 tpy for the proposed SCCT project.

# 5.7.5 BACT for VOC

#### 5.7.5.1 Available VOC Control Technologies and Technical Feasibility (Steps 1, 2 and 3)

VOC emissions are formed in combustion processes as a result of incomplete combustion of carbonaceous fuels. Similar to the generation of NO<sub>x</sub> emissions, the primary factors influencing the generation of VOC emissions are temperature and residence time within the combustion zone. Table C-32 contains the VOC BACT determination results of the RBLC database search for industrial-sized boilers and furnaces less than 100 MMBtu/hr heat input firing natural gas only. Available emission control techniques for VOC are good combustion practices and oxidation catalysts. As indicated for CO, oxidation catalysts have not been used on pipeline heaters such as proposed.

#### 5.7.5.2 Energy, Environmental and Economic Impacts (Step 4)

There are no potential adverse energy, environmental, or economic impacts that would preclude the use of good combustion practices.

#### 5.7.5.3 Proposed VOC BACT Emission Limits (Step 5)

The VOC BACT determinations for fuel gas heaters at several other recently permitted facilities is 0.005 lb/MMBtu. Therefore, the proposed VOC BACT for the fuel gas heater for CERC is 0.005 lb/MMBtu based on use of good combustion practices and the exclusive use of natural gas.

# 5.7.6 BACT for SO<sub>2</sub> and H<sub>2</sub>SO<sub>4</sub>

The fuel gas heater will be fired exclusively with natural gas. The proposed  $SO_2/H_2SO_4$  BACT for the fuel gas heater will be exclusive use of natural gas.



# 5.8 Natural Gas Piping

# 5.8.1 BACT for GHG and VOC

Natural gas piping venting and components (valves, flanges etc.) can result in fugitive releases of natural gas into the atmosphere. Natural gas is comprised primarily of methane with small quantities of VOC (non-methane, non-ethane).

## 5.8.1.1 <u>Available GHG and VOC Control Technologies and Technical Feasibility (Steps 1, 2</u> and 3)

Potential control options for fugitive GHG and VOC emissions include:

- Development and implementation of a leak detection and repair (LDAR) program
- Performance of audio/visual/olfactory (AVO) inspections
- Use of low-emission piping component design practices

LDAR involves the use of monitoring technology to identify leaking components and subsequent repair of such components. LDAR programs have been used as a work practice under numerous federal regulations to reduce fugitive emissions from chemical manufacturing, natural gas processing, and other industries. Monitoring is generally performed using handheld gas analyzers in accordance with Method 21 in Appendix A-7 of 40 CFR Part 60 or Optical Gas Imaging Cameras (OGICs). When a leak is identified, repair is generally required within a specified timeframe to minimize the fugitive emission.

AVO inspections involve the use of audio, visual, and olfactory senses to detect leaks. Pressurized natural gas escaping through a leaking component may generate an audible "hiss". The pressure drop across the leak interface may result in visual leak indicators such as condensation or ice formation. Finally, natural gas is odorized with mercaptan for safety and thus has a discernible odor. Components exhibiting audio, visual, or olfactory indications of a leak are repaired within a specified timeframe to minimize the fugitive emission.

Emissions from leaking components can be reduced through the use of welded connections, leakless valves, and sealless pumps. Common leakless valves include bellow valves and diaphragm valves. Common sealless pumps are diaphragm pumps, canned motor pumps, and magnetic drive



pumps. Although effective at minimizing leaks, the use of leakless components may be limited by materials of construction considerations and process operating conditions.

AVO inspections were the only control option identified for piping fugitive GHG and VOC emissions at a power generation facility. Monitoring leaks from natural gas piping components is feasible using audio, visual and olfactory (AVO) sensing.

#### 5.8.1.2 Energy, Environmental and Economic Impacts (Step 4)

Dominion is proposing AVO inspections as BACT to reduce fugitive GHG emissions from Project fuel gas piping venting and components. This control option does not pose any adverse energy, environmental, or economic impacts. Routine AVO inspections can be performed by Facility personnel as a part of normal Facility maintenance activities without the added cost of third-party monitoring contractors that would be required to implement a LDAR program. Such third-party contractors would need to travel to the Facility to perform LDAR monitoring, resulting in adverse energy and environmental impacts due to the combustion of fossil fuels, which will be avoided through application of the proposed control options.

#### 5.8.1.3 Proposed GHG and VOC BACT Emission Limits (Step 5)

Weekly AVO inspections are proposed as BACT for fugitive GHG and VOC emissions from natural gas piping. The proposed BACT is in alignment with BACT determinations made for fugitive GHG and VOC emissions from piping at other power generation facilities. An AVO Plan will be submitted no later than 60 days prior to startup of the SCCTs.

Additionally, the proposed GHG BACT for natural gas piping fugitive emissions is a total GHG emission limit (expressed as CO<sub>2</sub>e) of 2,213,100 tpy for the proposed SCCT project.

## 5.9 <u>Circuit Breaker GHG BACT Analysis</u>

Dominion is proposing the use of  $SF_6$  circuit breakers for CERC.  $SF_6$  is one of the six pollutants that comprise GHGs.  $SF_6$  is a synthetic gas that possesses excellent electrical insulating properties. Because of this,  $SF_6$  is used as an insulating gas in many electrical circuit breakers.



# 5.9.1 Available GHG Control Technologies (Step 1)

The most effective control method for minimizing emissions of SF<sub>6</sub> from circuit breakers is to install modern, fully enclosed circuit breakers integrated with state-of-the-art technology such as low-pressure leak detection systems. The effectiveness of leak-tight closed systems is enhanced by equipping them with a density alarm that provides a warning when the SF<sub>6</sub> gas has escaped. The use of an alarm identifies potential leak issues before the bulk of the SF<sub>6</sub> has escaped to the atmosphere allowing the operator to promptly address and remedy the issue.

Use of another type of insulating material in the proposed circuit breakers could be a control option for reducing circuit breaker GHG emissions. According to the National institute of Standards and Technology (NIST) Technical Note 1425 (Technical Note) 41, dielectric oil and compressed air ("air blast") circuit breakers are alternatives to SF<sub>6</sub> circuit breakers. The availability of the SF<sub>6</sub>-free circuit breakers is limited to circuit breakers less than 145 kV.

# 5.9.2 GHG BACT Technical Feasibility (Steps 2 and 3)

According to the Technical Note, SF<sub>6</sub> is a vastly superior dielectric gas for nearly all high voltage applications. SF<sub>6</sub> exhibits exceptional insulation and arc-interruption properties and is proven technology that has been thoroughly investigated and successfully applied in the field. Furthermore, the Technical Note states that "the use of SF<sub>6</sub> insulation has distinct advantages over oil insulation, including none of the fire safety problems or environmental problems related to oil, high reliability, flexible layout, little maintenance, long service life, lower noise, better handling, and lighter equipment." As a result, the report concludes that SF<sub>6</sub> is clearly superior in performance to the air and oil insulated equipment used prior to the development of SF<sub>6</sub> insulated circuit breakers. Although some new gases show promise for use as an insulating fluid in new equipment, additional research is required prior to implementation of these new gases in the field for the larger circuit breakers. Therefore, there are currently no technically feasible alternatives to the SF<sub>6</sub> circuit breakers for those that are larger than 145 kV. CERC will use SF<sub>6</sub>-free circuit breakers for those less than 145 kV.

# 5.9.3 Energy, Environmental and Economic Impacts (Step 4)

There are no potential adverse energy, environmental, or economic impacts that would preclude the controls proposed for the SF<sub>6</sub> circuit breakers.



# 5.9.4 **Proposed GHG BACT Emission Limits (Step 5)**

There may potentially be some small, nonroutine emissions of SF<sub>6</sub> during the operation resulting from opening and closing the circuit breakers. To minimize emissions of SF<sub>6</sub>, Dominion proposes to use circuit breakers that do not contain SF<sub>6</sub> wherever possible (i.e., for circuit breakers less than 145 kV). In those cases where non-SF<sub>6</sub> circuit breakers are not available), Dominion proposes to use state-of-the-art enclosed-pressure SF<sub>6</sub> circuit breakers with leak detection as BACT for SF<sub>6</sub>. These units will be designed to meet an industry standard annual leak rate of 0.5%. In comparison to older circuit breakers containing SF<sub>6</sub>, modern circuit breakers are designed as totally enclosed-pressure systems with a far lower potential for SF<sub>6</sub> emissions.

The proposed GHG BACT for the circuit breakers is based on an industry standard annual leak rate of 0.5%.

# 5.10 <u>Material Delivery Truck Traffic PM/PM<sub>10</sub>/PM<sub>2.5</sub> BACT Analysis</u>

There will be fugitive particulate emissions associated with deliveries of ammonia for the SCR, fuel oil (when not delivered by barge), and demineralized water. All of the roads will be paved.

# 5.10.1 Available PM/PM<sub>10</sub>/PM<sub>2.5</sub> Control Technologies and Technical Feasibility (Steps 1, 2 and 3)

For paved roads, the RBLC search identified periodic road cleaning (with water, dust suppressants, or sweeping) as necessary to remove material that is deposited on the road surface. Such methods can reduce particulate emissions by up to 90% and are technically feasible for CERC.

# 5.10.2 Energy, Environmental and Economic Impacts (Step 4)

There are no potential adverse energy, environmental, or economic impacts that would preclude the controls proposed for the truck traffic.

# 5.10.3 Proposed PM/PM<sub>10</sub>/PM<sub>2.5</sub> BACT Emission Limits (Step 5)

Dominion is proposing as BACT to control fugitive PM/PM<sub>10</sub>/PM<sub>2.5</sub> emissions associated with truck traffic on paved road surfaces using a program of regular road cleaning as necessary to promptly remove deposits from the road surface. This emission control method is expected to reduce



emissions by 90%, consistent with the RBLC control efficiency. Emissions from truck traffic were calculated assuming 0% control to provide a conservative, worst-case estimate.

# 5.11 Fuel Oil Storage Tanks VOC BACT Analysis

Breathing and working losses from the 12 million gallon fuel oil storage tank, the six integral 3,500 gallon belly storage tanks on the emergency generators, and the integral 500 gallon horizontal storage tank on the fire pump will result in VOC emissions.

# 5.11.1 Available VOC Control Technologies and Technical Feasibility (Steps 1, 2 and 3)

The 12 million gallon fuel oil tank for the SCCTs will be a fixed roof tank. Add-on emission controls are not used for storage of low vapor pressure liquids such as fuel oil. The NSPS for large storage tanks (40 CFR Part 60 Subpart Kb) does not require emission controls for storage of distillate oil in any size tank, even multi-million gallon tanks. The use of fixed roof tanks with conservation vents is proposed as BACT for VOC emissions for this equipment.

# 5.11.2 Energy, Environmental and Economic Impacts (Step 4)

There are no potential adverse energy, environmental, or economic impacts that would preclude the controls proposed for the fuel oil storage tanks.

# 5.11.3 **Proposed VOC BACT Emission Limits (Step 5)**

The use of fixed roof tanks with conservation vents is proposed as BACT for VOC emissions for this equipment.

# 5.12 Summary of Proposed BACT Levels

Tables 5-8 and 5-9 provide summaries of the BACT control technologies proposed.



Pollutant	Fuel/Condition	Emissions Rate		Control Technology
NOx	Natural gas H₂ fuel blend	2.5	ppmvd @ 15% oxygen ppmvd @ 15% oxygen	Dry-Low NO <sub>x</sub> Burners/SCR Dry-Low NO <sub>x</sub> Burners/SCR
	Fuel Oil	5		Water Injection/SCR
	Startup - Natural Gas Shutdown – Natural Gas	52 20	lb/event lb/event	Good combustion Good combustion
	Startup – fuel oil Shutdown – fuel oil	143 62		Good combustion Good combustion
со	Natural Gas H <sub>2</sub> fuel blend	2	ppmvd @ 15% oxygen ppmvd @ 15% oxygen	Good combustion /Oxidation Catalyst Good combustion/ /Oxidation Catalyst
	Fuel Oil	2		Good combustion /Oxidation Catalyst
	Startup - Natural Gas Shutdown – Natural Gas	366 152		Good combustion Good combustion
	Startup – fuel oil Shutdown – fuel oil	1,036 246		Good combustion Good combustion
PM.5	Natural Gas H <sub>2</sub> fuel blend Fuel Oil	0.008 0.008 0.02	lb/MMBtu	Clean Fuels Clean Fuels Clean Fuels
PM <sub>10</sub> /PM <sub>2.5</sub>	Natural Gas H <sub>2</sub> fuel blend Fuel Oil	0.014 0.014 0.03	lb/MMBtu lb/MMBtu	Clean Fuels Clean Fuels Clean Fuels
GHG	Greater than 90% natural gas based on heat input	120	lb CO <sub>2</sub> /MMBtu	Efficient combustion
	Less than 90% natural gas based on heat input	120 - 160	lb CO <sub>2</sub> /MMBtu	Efficient combustion
VOC	Natural Gas	1.0	ppmvd @ 15% O <sub>2</sub>	Good combustion
	H <sub>2</sub> fuel blend	1.0	ppmvd @ 15% O <sub>2</sub>	Good combustion
SO <sub>2</sub> /H <sub>2</sub> SO <sub>4</sub>	Fuel Oil Natural Gas H <sub>2</sub> fuel blend Fuel Oil	2	ppmvd @ 15% O <sub>2</sub> Use of natural gas Use of H <sub>2</sub> fuel blend Use of Fuel Oil	Good combustion Clean Fuels Clean Fuels Clean Fuels

## Table 5-8. Summary of Proposed BACT Emissions Limits for the SCCTs

Sources: Dominion, 2023. ECT, 2023.



Emissions Unit	Pollutant	Fuel	Emissions Rate	Control Technology
Firewater pump engine	NOx	Fuel Oil	4.0 g/kW-hr	GCP, compliance with NSPS
	CO	Fuel Oil	3.5 g/kW-hr	GCP, compliance with NSPS
	PM	Fuel Oil	0.15 g/bhp-hr	Fuel Oil, compliance with NSPS
	PM <sub>10</sub> /PM <sub>2.5</sub>	Fuel Oil	1.0 g/bhp-hr	Fuel Oil, compliance with NSPS
	GHG	Fuel Oil	2,213,100 tpy CO <sub>2</sub> e	Total limit for SCCT project
	VOC	Fuel Oil	4.0 g/kW-hr	GCP, compliance with NSPS
	SO <sub>2</sub> /H <sub>2</sub> SO <sub>4</sub>	Fuel Oil	Use of Fuel Oil	Clean Fuels
3,500-kWe emergency generator engines	NO <sub>x</sub>	Fuel Oil	6.4 g/kW-hr	GCP, compliance with NSPS
	СО	Fuel Oil	3.5 g/kW-hr	GCP, compliance with NSPS
	PM	Fuel Oil	0.20 g/kW-hr	Fuel Oil, compliance with NSPS
	PM <sub>10</sub> /PM <sub>2.5</sub>	Fuel Oil	0.23 g/kW-hr	Fuel Oil, compliance with NSPS
	GHG	Fuel Oil	2,213,100 tpy CO <sub>2</sub> e	Total limit for SCCT project
	VOC	Fuel Oil	6.4 g/kW-hr	GCP, compliance with NSPS
	SO <sub>2</sub> /H <sub>2</sub> SO <sub>4</sub>	Fuel Oil	Use of Fuel Oil	Clean Fuels
Natural gas heater	NOx	Natural gas	0.011 lb/MMBtu	Natural gas, GCP
	CO	Natural gas	0.037 lb/MMBtu	Natural gas, GCP
	PM/PM <sub>10</sub> `	Natural gas	0.007 lb/MMBtu	Natural gas, GCP
	PM <sub>2.5</sub> `	Natural gas	0.007 lb/MMBtu	Natural gas, GCP
	GHG	Natural gas	2,213,100 tpy CO <sub>2</sub> e	Total limit for SCCT project
	VOC	Natural gas	0.005 lb/MMBtu	Natural gas, GCP
	SO <sub>2</sub> /H <sub>2</sub> SO <sub>4</sub>	Natural Gas	Use of natural gas	Clean Fuels
Natural Gas Piping Components	VOC	N/A	Use of natural gas	Clean Fuels
Circuit Breakers Haul Trucks Fuel Oil Storage Tanks	GHG GHG PM/PM <sub>10</sub> /PM <sub>2.5</sub> VOC	N/A N/A N/A N/A	2,213,100 tpy CO <sub>2</sub> e 2,213,100 tpy CO <sub>2</sub> e Work Practice Work Practice	Total limit for SCCT project Total limit for SCCT project Watering/sweeping paved roads Fixed Roof Tanks

#### Table 5-9. Summary of Proposed BACT Emissions Limits for Ancillary Sources

Sources: Dominion, 2023. ECT, 2023.



# 6.0 PSD Class II Modeling Procedures

Pending VDEQ's approval of the emissions sources' emissions rates and stack parameters, the air dispersion modeling for the project will be finalized, and Sections 6.0 through 9.0 and Appendices E through G will be provided as an addendum to this application.



# 7.0 Class II Area SIL Analysis Results

Pending VDEQ's approval of the emissions sources' emissions rates and stack parameters, the air dispersion modeling for the project will be finalized, and Sections 6.0 through 9.0 and Appendices E through G will be provided as an addendum to this application.



# 8.0 Class II Area Cumulative Impact Assessment Results

Pending VDEQ's approval of the emissions sources' emissions rates and stack parameters, the air dispersion modeling for the project will be finalized, and Sections 6.0 through 9.0 and Appendices E through G will be provided as an addendum to this application.



# 9.0 Additional Impact Analysis

Pending VDEQ's approval of the emissions sources' emissions rates and stack parameters, the air dispersion modeling for the project will be finalized, and Sections 6.0 through 9.0 and Appendices E through G will be provided as an addendum to this application. In addition, a Class I analysis will be provided, if necessary, under separate cover.



# 10.0 Site Suitability and Environmental Justice

Consideration of site suitability and Environmental Justice (EJ) are among the requirements for obtaining an air permitting (Va. Code §10.1-1307.E; Va. Code § 2.2-234, and Va. Code § 10.1-1183). The site suitability provisions (Va. Code § 10.1-1307.E and 9 VAC 5-170-170) require VADEQ, before issuing a permit, to "consider facts and circumstances relevant to the reasonableness of the activity involved," including consideration of the following:

1. The character and degree of injury to, or interference with safety, health, or the reasonable use of property which is caused or threatened to be caused;

2. The social and economic value of the activity involved;

3. The suitability of the activity to the area in which it is located, except that consideration of this factor shall be satisfied if the local governing body of a locality in which a facility or activity is proposed has resolved that the location and operation of the proposed facility or activity is suitable to the area in which it is located; and

4. The scientific and economic practicality of reducing or eliminating the discharge resulting from the activity.

Generally, there are three steps to an EJ analysis: (1) identify whether an EJ community is implicated; and if so, (2) provide enhanced public participation to ensure EJ communities have a meaningful voice; and (3) ensure no negative disproportionate impacts on any EJ community.

An EJ Screening Phase I report is provided in Appendix H. Additional information will be provided upon completion of the ambient air impact analysis to demonstrate compliance with site suitability and EJ requirements.



# 11.0 References/Bibliography

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# Appendix A Application Forms





# NEW SOURCE REVIEW PERMITS and STATE OPERATING PERMITS

for

# AIR PERMIT FORM 7 APPLICATION

# COMMONWEALTH OF VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY



PERMIT FORMS PURSUANT TO REGULATIONS FOR THE CONTROL AND ABATEMENT OF AIR POLLUTION

VIRGINIA DEPARTMENT OF ENVIRONN LOCAL GOVERNING BODY (		
Business Entity Name (same name on file with the <u>Virginia SCC</u> ) Virginia Electric and Power Company		ration Number: 5 <b>0396-26</b>
Applicant's Name: Robert W. Sauer	Name of Contact Person at the site: T. R. Andrake	
Applicant's Mailing address: 600 Canal Street Richmond, VA 23219	Contact Person Telephone Number: (804) 839-2760	
Facility location (also attach map): <b>500 Coxendale Road, Chester, VA, Chesterfield County</b>		
Facility type, and list of activities to be conducted: Electric Power Generation		
The applicant is in the process of completing an application for Department of Environmental Quality. In accordance with § 10 amended, before such a permit application can be considered of the governing body of the county, city or town in which the facil facility are consistent with all applicable ordinances adopted pu 15.2. The undersigned requests that an authorized representa- below.	.1-1321. complete ity is to b rsuant to	1. Title 10.1, Code of Virginia (1950), as , the applicant must obtain a certification from e located that the location and operation of the o Chapter 22 (§§ 15.2-2200 <u>et seq</u> .) of Title
Applicant's Robert W. Sauer signature:		
The undersigned local government representative certifies to the consistency of the proposed location and operation of the facility described above with all applicable local ordinances adopted pursuant to Chapter 22 (§§15.2-2200 et seq.) of Title 15.2. of the Code of Virginia (1950) as amended, as follows: (Check one block) X The proposed facility is fully consistent with all applicable local ordinances.		
The proposed facility is <b>inconsistent</b> with applicable loca	l ordinanc	es; see attached information.
Signature of authorized government representative:		Date:
Type or print name:		Title:
County, city or town:		

# [THE LOCAL GOVERNMENT REPRESENTATIVE SHOULD FORWARD THE SIGNED CERTIFICATION TO THE APPROPRIATE DEQ REGIONAL OFFICE AND SEND A COPY TO THE APPLICANT.]

#### VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY – 2023 AIR PERMIT APPLICATION FEES VALID JANUARY 1, 2023 TO DECEMBER 31, 2023

Air permit applications are subject to a fee and fee are adjusted January 1 of each calendar year. The fee does not apply to administrative amendments or true minor sources. Applications will be considered incomplete if the proper fee is not paid and will not be processed until full payment is received. Air permit application fees are not refundable. Please contact the Regional Air Permit Manager if you are unsure of your fee amount.

Step 1: Send this ORIGINAL form and a check (or money order) payable to "Treasurer of Virginia" to:

Department of Environmental Quality		Department of Environmental Quality
Receipts Control	OR	Receipts Control
P.O. Box 1104	FOR OVERNIGHT	1111 East Main Street, Suite 1400
Richmond, VA 23218	DELIVERY	Richmond, VA 23219

Step 2: Send a COPY of this form with the permit application to the appropriate DEQ Regional Office

Step 3: Retain a copy for your records. Questions should be directed to the DEQ regional office where the application will be submitted

COMPANY NAME:	Virginia Electric and Power Company	FIN:	54-0418825
COMPANY REPRESENTATIVE:	Robert W. Sauer	EMAIL ADDRESS:	robert.w.sauer@dominionenergy.com
		ADDRESS:	
MAILING ADDRESS:	600 Canal St, Richmond, VA 23219		
BUSINESS PHONE:	(804) 273-3685	FAX:	
FACILITY NAME:	Chesterfield Power Station	REGISTRATION NUMBER:	PRO 50396-26
PHYSICAL LOCATION:	500 Coxendale Road, Chester, VA,		
	Chesterfield County		

PERMIT ACTIVITY AIR PERMIT APPLICATION FEES ARE NOT REFUNDABLE Please contact the <u>Regional Air Permit Manager</u> if you are unsure of your fee amount	APPLICATION FEE AMOUNT	CHECK ONE
Sources subject to Title V permitting requirements:		
<ul> <li>Major NSR permit (Articles 7, 8, 9)</li> </ul>	\$81,399	
<ul> <li>Major NSR permit amendment (Articles 7, 8, 9) (except administrative)*</li> </ul>	\$12,920	
State major permit (Article 6)	\$32,301	
Title V permit (Articles 1, 3)	\$45,222	
Title V permit renewal (Articles 1, 3)	\$19,380	
Title V permit modification (Articles 1, 3)	\$5,168	
Minor NSR permit (Article 6)	\$6,460	
Minor NSR amendment (Article 6) (except administrative)*	\$3,230	
State operating permit (Article 5)	\$12,920	
<ul> <li>State operating permit amendment (Article 5) (except administrative)*</li> </ul>	\$5,168	
Sources subject to Synthetic Minor permitting requirements:		
Minor NSR permit (Article 6)	\$3,876	
<ul> <li>Minor NSR amendment (Article 6)* (except administrative)*</li> </ul>	\$1,292	
State operating permit (Article 5)	\$6,460	
State operating permit amendment (Article 5)* (except administrative)*	\$3,230	
*AIR PERMIT APPLICATION FEES DO NOT APPLY TO ADMINISTRATIVE AN DEQ OFFICE TO WHICH PERMIT APPLICATION WILL BE SUBMITTED (ch		
	FOR DEQ USE ONLY	Y

SWRO/Abingdon	NRO/Woodbridge	PRO/Richmond	Date:
			DC #:
VRO/Harrisonburg	BRRO/Roanoke	TRO/Virginia Beach	Reg. No.:

#### AIR PERMIT APPLICATION CHECKLIST

#### APPLICATION FORM PAGES AND NUMBER OF COPIES

Place a "√"In Boxes Below to Indicate Pages Included with Application Submittal	Page Title and Page Number	Indicate Number of Copies Included with Application Submittal
X	Local Governing Body Certification Form, Page 5	
X	Application Fee Form, Page 6	
X	Application and Attachments Checklist, Page 9	
X	Document Certification Form, Page 10	
Х	General Information, Pages 11-12	
Х	Fuel Burning Equipment, Page 13	
Х	Stationary Internal Combustion Engines, Page 14	
	Incinerators, Page 15	
Х	Processing, Page 16	
	Inks, Coatings, Stains, and Adhesives, Page 17	
Х	VOC/Petroleum Storage Tanks, Pages 18-19	
	Loading Rack and Oil-Water Separators, Page 20	
	Fumigation Operations, Page 21	
Х	Air Pollution Control and Monitoring Equipment, Page 22	
	Air Pollution Control/Supplemental Information, Page 23	
X	Stack Parameters and Fuel Data, Page 24	
X	Proposed Permit Limits for Criteria Pollutants, Page 25	
X	Proposed Permit Limits for Toxic Pollutants/HAPs, Page 26	
X	Proposed Permit Limits for Other Reg. Pollutants, Page 27	
Х	Proposed Permit Limits for GHGs on Mass Basis, Page 28	
Х	Proposed Permit Limits for GHGs on CO <sub>2</sub> e Basis, Page 29	
	BAE for Criteria Pollutants, Page 30	
	BAE for GHGs on Mass Basis, Page 31	
	BAE for GHGs on CO <sub>2</sub> e Basis, Page 32	
Х	Operating Periods, Page 33	

#### ATTACHMENTS AND NUMBER OF COPIES

Place a "√"In Boxes Below to Indicate Attachments Included with Application Submittal	Attached Document Names (Use Blank Spaces to Write In Names of any Attachments Not Listed Below)	Indicate Number of Copies Included with Application Submittal
Х	Map of Site Location	
Х	Facility Site Plan	
	Process Flow Diagram/Schematic	
	MSDS or CPDS Sheets	
Х	Estimated Emission Calculations	
	Stack Tests	
	Air Modeling Data	
	Confidential Information (see Instructions)	
Х	BACT Analysis	



# DOCUMENT CERTIFICATION FORM

I certify under penalty of law that this document and all attachments [as noted above] were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering and evaluating the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I certify that I understand that the existence of a permit under [Article 6 of the Regulations] does not shield the source from potential enforcement of any regulation of the board governing the major NSR program and does not relieve the source of the responsibility to comply with any applicable provision of the major NSR regulations.

DATE:	Aug 1, 2023
SIGNATURE:	Robert W. Saner
NAME:	Robert W. Sauer
TITLE:	VP System Operations
PHONE:	804-273-3685
EMAIL:	robert.w.sauer@dominionenergy.com
REGISTRATION NO:	50396-26
COMPANY NAME:	Virginia Electric and Power Company
ADDRESS:	600 Canal Street
	Richmond, Virginia 23219

References: Virginia Regulations for the Control and Abatement of Air Pollution (Regulations), <u>9VAC5-20-230B</u> and <u>9VAC5-80-1140E</u>.

#### **GENERAL INFORMATION**

Person Completing Form:				Registration Number: PRO-50396-26
Adam George			31, 2023	
Company and Division Name:				FIN: 54-0418825
Virginia Électric and Power Company				
Mailing Address: 600 Canal Street Richmond, Virgi	nia 23210			
Exact Source Location – Include N		III Stroot	Address or	Directions:
500 Coxendale Road	Value of City (County) and I d			
Chester (Chesterfield County), VA	23836			
	20000			
Facility Phone Number:	No. of Employees:			Area at Site:
	TBD		94 acres	
Person to Contact on Air Pollution		Contact		mber: (804) 839-2760
	Matters Marile and Hite.	Contact		
Name: T.R. Andrake		Contact	Email <sup>.</sup>	
				dominionenergy.com
Title: Environmental Consultant		Contact		such in the relief of the reli
Latitude and Longitude Coordinate	es <b>OR</b> LITM Coordinates of F		T UX.	
37°22'54.43" N, 77°23'02.86"W		acinty.		
Reason(s) for Submission (Chec	k all that apply):			
State Operating Permit	This permit is applied for p	ursuant t	o provision	s of the Virginia
	Administrative Code, 9 VA			
	Administrative bode, 5 VA			
New Source	This permit is applied for p	ureuant t	o the follow	ing provisions of the
	Virginia Administrative Cod			
X Modification of a Source	9 VAC 5 Chapter 80,		(Minor So	
	X 9 VAC 5 Chapter 80,			
Relocation of a Source			•	inment Major Sources)
		AILICIE 9	(NOIT-Alla	
Amendment to a Permit Date	d: Permit Type	9: 🗌 SC	OP (Art. 5)	NSR (Art. 6, 8, 9)
Amendment Type:	This amendment is requested	ed pursua	ant to the p	rovisions of:
Administrative Amendment	9 VAC 5-80-970 (Art. 5 /	Adma )		E 90 1025 (Art. 9 Adm.)
		,		5-80-1935 (Art. 8 Adm.)
Minor Amendment	9 VAC 5-80-980 (Art. 5 1	-		5-80-1945 (Art. 8 Minor)
Significant Amendment	9 VAC 5-80-990 (Art. 5 \$	sig.)	9 VAC	5-80-1955 (Art. 8 Sig.)
		Adm )		5 80 2210 (Art 0 Adm)
	9 VAC 5-80-1270 (Art. 6	,		5-80-2210 (Art. 9 Adm.)
	9 VAC 5-80-1280 (Art. 6			5-80-2220 (Art. 9 Minor)
	9 VAC 5-80-1290 (Art. 6	sig.)	9 VAC	5-80-2230 (Art. 9 Sig.)
Other (specify):				
Explanation of Permit Request (a				
Dominion is proposing to install the Che located within the James River Industria				
(CPS) located at 500 Coxendale Road i				
project will consist of four dual fuel simp	le-cycle combustion turbines (SCC	CT) firing p	rimarily pipel	ine quality natural gas, as well as
having the capability to fire No. 2 fuel oil				
of operating on an advanced gaseous fuel blend consisting of natural gas with up to 10% hydrogen (H <sub>2</sub> fuel blend). The SCCTs will be equipped with selective catalytic reduction (SCR) system and oxidation catalyst as post-combustion emission controls. The				
purpose and design of the CERC project by the PJM Regional Transmission Ope				
temperature events as well as when inte				
insufficient to meet customer needs. The				
while also optimizing reliability and ecor				

#### **GENERAL INFORMATION (CONTINUED)**

For Portable Plants:
Is this facility designed to be portable?
If yes, is this facility already permitted as a portable plant?     Yes     No     Permit Date:
If not permitted, is this an application to be permitted as a portable plant? Yes No
If permitted as a portable facility, is this a notification of relocation?
Describe the new location or address (include a site map):
Will the portable facility be co-located with another source?     Yes     No     Reg. No     Will the portable facility be modified or reconstructed as a result of the relocation?     Yes     No
Will there be any new emissions other than those associated with the relocation?     Yes     No
Is the facility suitable for the area to which it will be located? (attach documentation)     Yes     No
Describe the products manufactured and/or services performed at this facility: Electrical power generation

#### List the Standard Industrial Classification (SIC) Code(s) for the facility:

						-	-		1	-		•	-		
4	9	1	1												
-	5	1	1												

List the North American Industry Classification System (NAICS) Code(s) for the facility:

•	•				<u> </u>						 	
- 7	2	1	1	1	- 7							
-	-	•	•	•	-							

List all the facilities in Virginia under common ownership or control by the owner of this facility:

Numerous facilities throughout Virginia

**Milestones:** This section is to be completed if the permit application includes a new emissions unit or modification to existing operations.

Milestones*:	Starting Date:	Estimated Completion Date:				
New Equipment Installation	2 <sup>nd</sup> Quarter 2025	2 <sup>nd</sup> Quarter 2027				
Modification of Existing Process or Equipment	N/A	N/A				
Start-up Dates	2 <sup>nd</sup> Quarter 2027	2 <sup>nd</sup> /3 <sup>rd</sup> Quarter 2027				

\*For new or modified installations to be constructed in phased schedule, give construction/installation starting and completion date for each phase.

#### FUEL BURNING EQUIPMENT: (Boilers, Turbines, Kilns, and Other External Combustion Units)

Unit Ref. No.	Equipment Manufacturer, Type, and Model Number	Date of Manuf.	Date of Const.	Max. Rated Input Heat Capacity For Each Fuel (Million Btu/hr)	Type of Fuel	Type of Equip. (use Code A)	Usage (use Code B)	Requested Throughput* (hrs/yr OR fuel/yr)	Federal Regulations that Apply
ES- 33	General Electric (GE) 7FA-05 simple- cycle combustion turbine	TBD	TBD	2,445 MMBtu/hr (NG) 2,449 MMBtu/hr (NG/Hydrogen) 2,452 MMBtu/hr (FO)	Natural Gas, Natural Gas w Hydrogen, and Fuel Oil	19	6	See Section 3.0 and Appendix B	NSPS Part 60 Subpart KKKK, Subpart TTTT, NESHAP Part 63 Subpart YYYY
ES- 34	General Electric (GE) 7FA-05 simple- cycle combustion turbine	TBD	TBD	2,445 MMBtu/hr (NG) 2,449 MMBtu/hr (NG/Hydrogen) 2,452 MMBtu/hr (FO)	Natural Gas, Natural Gas w Hydrogen, and Fuel Oil	19	6	See Section 3.0 and Appendix B	NSPS Part 60 Subpart KKKK, Subpart TTTT, NESHAP Part 63 Subpart YYYY
ES- 35	General Electric (GE) 7FA-05 simple- cycle combustion turbine	TBD	TBD	2,445 MMBtu/hr (NG) 2,449 MMBtu/hr (NG/Hydrogen) 2,452 MMBtu/hr (FO)	Natural Gas, Natural Gas w Hydrogen, and Fuel Oil	19	6	See Section 3.0 and Appendix B	NSPS Part 60 Subpart KKKK, Subpart TTTT, NESHAP Part 63 Subpart YYYY
ES- 36	General Electric (GE) 7FA-05 simple- cycle combustion turbine	TBD	TBD	2,445 MMBtu/hr (NG) 2,449 MMBtu/hr (NG/Hydrogen) 2,452 MMBtu/hr (FO)	Natural Gas, Natural Gas w Hydrogen, and Fuel Oil	19	6	See Section 3.0 and Appendix B	NSPS Part 60 Subpart KKKK, Subpart TTTT, NESHAP Part 63 Subpart YYYY
ES- 37	Fuel gas heater	TBD	TBD	18.8 MMBtu/hr	Natural Gas	19	4	8,760 hrs/yr	NSPS Part 60 Subpart Dc, NESHAP Part 63 Subpart DDDDD

Estimated Emission Calculations Attached (include references of emission factors) and/or Stack Test Results if Available

Code A – Equipment		Code B - Usage
BOILER TYPE: 1. Pulverized Coal - Wet Bottom 2. Pulverized Coal - Dry Bottom 3. Pulverized Coal - Cyclone Furnace 4. Circulating Fluidized Bed 5. Spreader Stoke	<ol> <li>Gas, Tangentially Fired</li> <li>Gas, Horizontally Fired</li> <li>Wood with Flyash Reinjection</li> <li>Wood without Flyash Reinjection</li> <li>Other (specify)</li> </ol>	<ol> <li>Steam Production</li> <li>Drying / Curing</li> <li>Space Heating</li> <li>Process Heat</li> <li>Food Processing</li> <li>Electrical Generation</li> </ol>
<ul> <li>6. Chain or Travelling Grate Stoker</li> <li>7. Underfeed Stoker</li> <li>8. Hand Fired Coal</li> <li>9. Oil, Tangentially Fired</li> <li>10. Oil, Horizontally Fired (except rotary cup)</li> </ul>	<u>OTHER COMBUSTION UNITS:</u> 16. Oven / Kiln 17. Rotary Kiln 18. Process Furnace 19. Other (specify) Combustion Turbine, Fuel Gas Heater	<ul> <li>7. Mechanical Work</li> <li>8. Other (specify)</li> </ul>

\*Pick only one option for a requested throughput. <u>NOTE:</u> Dryers, kilns, and furnaces also have to fill out <u>Page 16.</u> Processing, Manufacturing, Surface Coating and Degreasing Operations.

#### STATIONARY INTERNAL COMBUSTION ENGINES:

Comp	any Name: Virginia Electric and	Power Com	ipany		Date:	Date: July 31, 2023 <b>Registration Number:</b> PRO 50396-26						
Unit Ref. No.	Equipment Manufacturer, Type, and Model Number	Date of Manuf.	Date of Const.	Output Brake Horsepower (bhp)	Output Electrical Power (kW)	Type of Fuel	Usage* (use Code C)	Requested Throughput** (hrs/yr OR fuel/yr)	Federal Regulations that Apply			
ES- 38	190-bhp diesel firewater pump	TBD	TBD	190	N/A	Fuel Oil	5	500 hrs/yr	NSPS Part 60 Subpart IIII; NESHAP Part 63 Subpart ZZZZ			
ES- 39	3,500-kWe emergency generator	TBD	TBD	4,694	3,500	Fuel Oil	1	500 hrs/yr	NSPS Part 60 Subpart IIII; NESHAP Part 63 Subpart ZZZZ			
ES- 40	3,500-kWe emergency generator	TBD	TBD	4,694	3,500	Fuel Oil	1	500 hrs/yr	NSPS Part 60 Subpart IIII; NESHAP Part 63 Subpart ZZZZ			
ES- 41	3,500-kWe emergency generator	TBD	TBD	4,694	3,500	Fuel Oil	1	500 hrs/yr	NSPS Part 60 Subpart IIII; NESHAP Part 63 Subpart ZZZZ			
ES- 42	3,500-kWe emergency generator	TBD	TBD	4,694	3,500	Fuel Oil	1	500 hrs/yr	NSPS Part 60 Subpart IIII; NESHAP Part 63 Subpart ZZZZ			
ES- 43	3,500-kWe emergency generator	TBD	TBD	4,694	3,500	Fuel Oil	1	500 hrs/yr	NSPS Part 60 Subpart IIII; NESHAP Part 63 Subpart ZZZZ			
ES- 44	3,500-kWe emergency generator	TBD	TBD	4,694	3,500	Fuel Oil	1	500 hrs/yr	NSPS Part 60 Subpart IIII; NESHAP Part 63 Subpart ZZZZ			

Estimated Emission Calculations Attached (include references of emission factors <u>and manufacturer specifications per engine</u>) and/or Stack Test Results if Available.

#### Code C – Usage

- 1. Emergency Generator
- 2. Participates in Emergency Load Response Program
- 3. Non-Emergency Generator
- 4. Participates in Demand Response Program(s)
- 5. Other (specify)

# \*Can pick more than one option

(i.e. 1 and 2 <u>OR</u> 3 and 4)

\*\*Pick only one option for a requested throughput.

#### PROCESSING, MANUFACTURING, SURFACE COATING AND DEGREASING OPERATIONS:

Compan	<b>y Name:</b> Virginia Electr	ic and Power Company		Date	e: July 31, 202	23	Registration Nu	ımber:	PRO 50396-26
Unit Ref. No.	Process or Operation Name	Equipment Manufacturer, Type, and Model Number	Date of Manuf.	Date of Const.	Max. Rated Capacity	Re (/hr	quested Throug	hput*	Federal Regulations that Apply
СВ	Circuit Breakers	TBD	TBD	TBD	(/hr)* 8,760 hrs/yr (0.5% leak rate)		/ (,ady)	8,760 hours	None

Estimated Emission Calculations Attached (include references of emission factors) and/or Stack Test Results if Available

\* Specify units for each operation in tons, pounds, gallons, etc., as applicable. For coating operations, the maximum rated capacity is the spray gun capacity.

# VOLATILE ORGANIC COMPOUND (VOC)/PETROLEUM LIQUID STORAGE TANKS:

Comp	Company Name: Virginia Electric and Power Company							luly 31, 2023	}	Registration Number: PRO 50396-26			
Unit Ref. No.	Tank Type (use Code H)	Source of Tank Contents (use Code I)	Date of Manuf.	Date of Const.	Material Stored - Name and CAS # (include Reid Vapor Pressure for Gasoline)	Max. True Vapor Pressure (psia)	Density* (Ibs/gal)	Max. Average Storage Temp. (°F)	Tank Diameter (feet)	Tank Capacity (gal)	Requested Throughput (gal/yr)	Federal Regulations that Apply	
TK3	1a	3	TBD	TBD	Fuel Oil CAS# 68476-30-2	0.0078	7.50 @ 60F	Ambient	205	12 million gallons	60 million gal/yr	None	
TK4	1a	3	TBD	TBD	Fuel Oil CAS# 68476-30-2	0.0078	7.50 @ 60F	Ambient	4	500 gallons	5,500 gal/yr	None	
TK5- 10	1b	3	TBD	TBD	Fuel Oil CAS# 68476-30	0.0078	7.50 @ 60F	Ambient	12'x8'	3,500 gallons (per tank)	125,400 gal/yr (per tank)	None	

Estimated Emission Calculations Attached (include TANKS Program printouts)

Code H – Tank Type		Code I – Source of Tank Contents
<ol> <li>Fixed Roof         <ul> <li>Vertical Tank</li> <li>Horizontal Tank</li> </ul> </li> <li>Floating Roof         <ul> <li>Internal (welded deck)</li> <li>Internal (bolted deck) – Specify Panel or Sheet</li> <li>External (welded deck)</li> <li>External (riveted deck)</li> </ul> </li> </ol>	<ol> <li>Variable Vapor Space</li> <li>Pressure Tank (over 15 psig)</li> <li>Underground Splash Loading</li> <li>Underground Submerged Loading</li> <li>Underground Submerged Loading, Balanced</li> <li>Other:</li> </ol>	<ol> <li>Pipeline</li> <li>Rail Car</li> <li>Tank Truck</li> <li>Ship or Barge</li> <li>Process</li> </ol>

\* Specify the ASTM temperature standard at which the density was measured.

# VOLATILE ORGANIC COMPOUND (VOC)/PETROLEUM LIQUID STORAGE TANKS (CONTINUED):

Company Name: Virginia Electric and	Power Company Date:	July 31, 2023	Registration Number:	PRO 50396-26
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	Tank Color			Fixed Roof Only						Floating Roof Only					
Unit			Internal Tank	Max.	E	xternal Fixed R	oof	Seal	Max. Hourly	Inter	Internal Floating Roof				
Ref. No.	Shell	Roof	Height or	Hourly Filling	Type of	Cone height	Dome height	Type (use	Withdrawal	Self	ľ	f no,			
NO.	Shell	KUUI	Length (feet)	(gallons)	Roof (cone or dome)	(ft) and slope (ft/ft)	(ft) and radius (ft)	Code J)	(gallons)	Supporting?	No. of Columns	Column Diameter (ft)			
TK3	TBD	TBD	65	TBD	N/A	N/A	N/A								
TK4	TBD	TBD	5	TBD	N/A	N/A	N/A								
TK5- 10	TBD	TBD	3	TBD	N/A	N/A	N/A								

Code J – Seal Type (Pontoon External Only)	(Double Deck External Only)	(Internal Only)	
<ol> <li>Mechanical Shoe         <ul> <li>Primary only</li> <li>Shoe mounted secondary</li> <li>Rim mounted secondary</li> </ul> </li> <li>Liquid Mounted         <ul> <li>Primary only</li> <li>Weather shield secondary</li> <li>Rim mounted secondary</li> <li>Vapor Mounted                 <ul> <li>Primary only</li> <li>Weather shield secondary</li> <li>Rim mounted secondary</li> <li>Wapor Mounted                     <ul> <li>Primary only</li> <li>Weather shield secondary</li> <li>Rim mounted secondary</li></ul></li></ul></li></ul></li></ol>	<ol> <li>Mechanical Shoe         <ul> <li>Primary only</li> <li>Shoe mounted secondary</li> <li>Rim mounted secondary</li> </ul> </li> <li>Liquid Mounted         <ul> <li>Primary only</li> <li>Weather shield secondary</li> <li>Rim mounted secondary</li> <li>Vapor Mounted                 <ul> <li>Primary only</li> <li>Weather shield secondary</li> <li>Vapor Mounted                     <ul> <li>Primary only</li> <li>Weather shield secondary</li> <li>Rim mounted secondary</li> </ul> </li> </ul> </li> </ul></li></ol>	<ol> <li>Mechanical Shoe         <ul> <li>a. Primary only</li> <li>b. Shoe mounted secondary</li> <li>c. Rim mounted secondary</li> </ul> </li> <li>Liquid Mounted         <ul> <li>a. Primary only</li> <li>b. Rim mounted secondary</li> </ul> </li> <li>Vapor Mounted         <ul> <li>a. Primary only</li> <li>b. Rim mounted secondary</li> </ul> </li> <li>Vapor Mounted         <ul> <li>a. Primary only</li> <li>b. Rim mounted secondary</li> </ul> </li> </ol>	

# Return to <u>"What Pages Do I Fill Out For My Facility?"</u>

# AIR POLLUTION CONTROL AND MONITORING EQUIPMENT:

<b>Name:</b> Virginia Electric and Power Company	Date:July 31, 2023Registration Number:PRO 50396-26
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				Air Pollution Con	trol Equipm	ent	Monitoring Instrumentation
Unit Ref. No.	Vent/ Stack No.	Device Ref. No.	Pollutant/Parameter	Manufacturer and Model No.	Type (use Code N)	Percent Efficiency (%)	Specify Type, Measured Pollutant, and Recorder Used
ES- 33	EP-23	SCR/ DLN	NOx		16-SCR 21 – Dry- Low NOx Combustors	90	CEMS, NOx
ES- 33	EP-23	SCR/WI	NOx		16-SCR 21- Water Injection	88	CEMS, NOx
ES- 34	EP-24	SCR/ DLN	NOx		16-SCR 21 – Dry- Low NOx Combustors	90	CEMS, NOx
ES- 34	EP-24	SCR/WI	NOx		16-SCR 21- Water Injection	88	CEMS, NOx
ES- 35	EP-25	SCR/ DLN	NOx		16-SCR 21 – Dry- Low NOx Combustors	90	CEMS, NOx
ES- 35	EP-25	SCR/ WI	NOx		16-SCR 21- Water Injection	88	CEMS, NOx
ES- 36	EP-26	SCR/ DLN	NOx		16-SCR 21 – Dry- Low NOx Combustors	90	CEMS, NOx
ES- 36	EP-26	SCR/WI	NOx		16-SCR 21- Water Injection	88	CEMS, NOx
ES- 33	EP-23	OC	CO/VOC		21- Oxidation catalyst	78 (CO- NG) 90 (CO – FO)	CEMS, CO
ES- 34	EP-24	OC	CO/VOC		21- Oxidation catalyst	78 (CO- NG) 90 (CO – FO)	CEMS, CO
ES- 35	EP-25	OC	CO/VOC		21- Oxidation catalyst	78 (CO- NG) 90 (CO – FO)	CEMS, CO
ES- 36	EP-26	OC	CO/VOC		21- Oxidation catalyst	78 (CO- NG) 90 (CO – FO)	CEMS, CO

Manufacturer Specifications Included

Code N – Type of Air Pollution Control Equipment

1. Settling Chamber

2. Cyclone

a. Hot sideb. Cold side

18. Absorber

a. Packed tower

<ol> <li>Multicyclone</li> <li>Cyclone scrubber</li> <li>Orifice scrubber</li> <li>Mechanical scrubber</li> <li>Venturi scrubber         <ul> <li>a. Fixed throat</li> <li>b. Variable throat</li> <li>8. Mist eliminator</li> <li>9. Filter</li></ul></li></ol>	<ul> <li>c. High voltage</li> <li>d. Low voltage</li> <li>e. Single stage</li> <li>f. Two stage</li> <li>g. Other:</li></ul>	<ul> <li>b. Spray tower</li> <li>c. Tray tower</li> <li>d. Venturi</li> <li>e. Other:</li> <li>19. Adsorber</li> <li>a. Activated carbon</li> <li>b. Molecular sieve</li> <li>c. Activated alumina</li> <li>d. Silica gel</li> <li>e. Other:</li> <li>20. Condenser (specify)</li> <li>21. Other:_Dry Low NOx Combustors/Water Injection/Oxidation Catalyst</li> </ul>
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# STACK PARAMETERS AND FUEL DATA:

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Company Name:	Virginia Electric and Power Company	Date:	July 31, 2023	Registration Number:	PRO 50396-26	ł

	Vent/ Stack No.			Vent/Stack or	Exhaust Dat	a			Fu	iel(s) Data		
Unit Ref. No.		Vent/Stack Config. (use Code O)	Vent/Stack Height (feet)	Exit Diameter (feet)	Exit Gas Velocity (ft/sec)	Exit Gas Flow Rate (acfm)	Exit Gas Temp. (°F)	Type of Fuel	Heating Value* (Btu/)	Max. Rated Burned/hr (specify units)	Max. Sulfur %	Max. Ash %
ES-33	EP-23A	5	150	24.5	130.68	3,694,690	850	NG	23,296 Btu/lbm HHV	105,000 lbm/hr	1.0 grain / 100 scf	
ES-33	EP-23B	5	150	24.5	130.74	3,696,340	850	NG w H2	23,777 Btu/lbm HHV	103,000 lbm/hr	1.0 grain / 100 scf	
ES-33	EP-23C	5	150	24.5	137.70	3,892,970	850	Fuel Oil	20,572 Btu/lbm HHV	120,000 lbm/hr	0.0015%	
ES-34	EP-24A	5	150	24.5	130.68	3,694,690	850	NG	23,296 Btu/lbm HHV	105,000 lbm/hr	1.0 grain / 100 scf	
ES-34	EP-24B	5	150	24.5	130.74	3,696,340	850	NG w H2	23,777 Btu/lbm HHV	103,000 lbm/hr	1.0 grain / 100 scf	
ES-34	EP-24C	5	150	24.5	137.70	3,892,970	850	Fuel Oil	20,572 Btu/lbm HHV	120,000 lbm/hr	0.0015%	
ES-35	EP-25A	5	150	24.5	130.68	3,694,690	850	NG	23,296 Btu/lbm HHV	105,000 lbm/hr	1.0 grain / 100 scf	
ES-35	EP-25B	5	150	24.5	130.74	3,696,340	850	NG w H2	23,777 Btu/lbm HHV	103,000 lbm/hr	1.0 grain / 100 scf	
ES-35	EP-25C	5	150	24.5	137.70	3,892,970	850	Fuel Oil	20,572 Btu/lbm HHV	120,000 lbm/hr	0.0015%	
ES-36	EP-26A	5	150	24.5	130.68	3,694,690	850	NG	23,296 Btu/lbm HHV	105,000 lbm/hr	1.0 grain / 100 scf	
ES-36	EP-26B	5	150	24.5	130.74	3,696,340	850	NG w H2	23,777 Btu/lbm HHV	103,000 lbm/hr	1.0 grain / 100 scf	
ES-36	EP-26C	5	150	24.5	137.70	3,892,970	850	Fuel Oil	20,572 Btu/lbm HHV	120,000 lbm/hr	0.0015%	
ES-37	EP-27	5	15	2	12.2	2,300	309	NG	23,593 Btu/lbm HHV	400 lb/hr	1.0 grain / 100 scf	
ES-38	EP-28	5	15	1	23.8	1,121.0	924	Fuel Oil	19,526 Btu/lbm HHV	10.6 gal/hr	0.0015%	
ES-39	EP-29	5	18	2	479.6	27,899	862.8	Fuel Oil	19,526 Btu/lbm HHV	246.2 gal/hr	0.0015%	
ES-40	EP-30	5	18	2	479.6	27,899	862.8	Fuel Oil	19,526 Btu/lbm HHV	246.2 gal/hr	0.0015%	
ES-41	EP-31	5	18	2	479.6	27,899	862.8	Fuel Oil	19,526 Btu/lbm HHV	246.2 gal/hr	0.0015%	
ES-42	EP-32	5	18	2	479.6	27,899	862.8	Fuel Oil	19,526 Btu/lbm HHV	246.2 gal/hr	0.0015%	
ES-43	EP-33	5	18	2	479.6	27,899	862.8	Fuel Oil	19,526 Btu/lbm HHV	246.2 gal/hr	0.0015%	
ES-44	EP-34	5	18	2	479.6	27,899	862.8	Fuel Oil	19,526 Btu/lbm HHV	246.2 gal/hr	0.0015%	

# Code O – Vent/Stack Configuration

- 1. Stack discharging downward, or nearly downward
- 2. Equivalent stack representing a combination of multiple actual stacks
- 3. Gooseneck stack
- Stack discharging in a horizontal direction
   Stack with an unobstructed opening discharge in a vertical direction
   Vertical stack with a weather cap or similar obstruction in exhaust system

\* Specify units for each heating value in Btus per unit of fuel.

# Return to <u>"What Pages Do I Fill Out For My Facility?"</u>

# **PROPOSED PERMIT LIMITS FOR CRITERIA POLLUTANTS:**

Company Name: Virginia Electric and Power Company	Date:July 31, 2023Registration Number:PRO 50396-26
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						Pro	posed P	ermit Limit	ts for Cri	teria Pollu	tants					
	PM <sup>a</sup> (Particulate Matter)		(10 μM or (Particulate smaller		PM 2.5 <sup>a,b</sup> (2.5 μM or smaller particulate matter)		SO <sub>2</sub> (Sulfur Dioxide)		NO <sub>X</sub> (Nitrogen Oxides)		CO (Carbon Monoxide)		VOC <sup>a</sup> (Volatile Organic Compounds)		Pb (Lead)	
Unit Ref. No.																
	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
ES-33 <sup>c</sup>	11.9 NG) 11.8 (NGwH2) 24.0 (Fuel Oil)		19.70 (NG) 19.50 (NGwH2) 45.00 (Fuel Oil)		19.70 (NG) 19.50 (NGwH2) 45.00 (Fuel Oil)		8.20 (NG) 8.10 (NGwH2) 4.50 (Fuel Oil)		23.30 (NG) 23.00 (NGwH2) 47.90 (Fuel Oil)		11.30 (NG) 11.20 (NGwH2) 11.70 (Fuel Oil)		3.20 (NG) 3.20 (NGwH2) 6.70 (Fuel Oil)		1.20E-03 (NG) 1.19E-03 (NGwH2) 3.43E-02 (Fuel Oil)	
ES-34 <sup>c</sup>	11.9 NG) 11.8 (NGwH2) 24.0 (Fuel Oil)		19.70 (NG) 19.50 (NGwH2) 45.00 (Fuel Oil)		19.70 (NG) 19.50 (NGwH2) 45.00 (Fuel Oil)		8.20 (NG) 8.10 (NGwH2) 4.50 (Fuel Oil)		23.30 (NG) 23.00 (NGwH2) 47.90 (Fuel Oil)		11.30 (NG) 11.20 (NGwH2) 11.70 (Fuel Oil)		3.20 (NG) 3.20 (NGwH2) 6.70 (Fuel Oil)		1.20E-03 (NG) 1.19E-03 (NGwH2) 3.43E-02 (Fuel Oil)	
ES-35 <sup>c</sup>	11.9 NG) 11.8 (NGwH2) 24.0 (Fuel Oil)		19.70 (NG) 19.50 (NGwH2) 45.00 (Fuel Oil)		19.70 (NG) 19.50 (NGwH2) 45.00 (Fuel Oil)		8.20 (NG) 8.10 (NGwH2) 4.50 (Fuel Oil)		23.30 (NG) 23.00 (NGwH2) 47.90 (Fuel Oil)		11.30 (NG) 11.20 (NGwH2) 11.70 (Fuel Oil)		3.20 (NG) 3.20 (NGwH2) 6.70 (Fuel Oil)		1.20E-03 (NG) 1.19E-03 (NGwH2) 3.43E-02 (Fuel Oil)	
ES-36 <sup>c</sup>	11.9 NG) 11.8 (NGwH2) 24.0 (Fuel Oil)		19.70 (NG) 19.50 (NGwH2) 45.00 (Fuel Oil)		19.70 (NG) 19.50 (NGwH2) 45.00 (Fuel Oil)		8.20 (NG) 8.10 (NGwH2) 4.50 (Fuel Oil)		23.30 (NG) 23.00 (NGwH2) 47.90 (Fuel Oil)		11.30 (NG) 11.20 (NGwH2) 11.70 (Fuel Oil)		3.20 (NG) 3.20 (NGwH2) 6.70 (Fuel Oil)		1.20E-03 (NG) 1.19E-03 (NGwH2) 3.43E-02 (Fuel Oil)	
ES-33-ES- 36 (12mo rolling) <sup>d</sup>		79.00		150.21		150.21		27.62		291.88		774.96		134.49		6.23E-02
ES-37	0.04	0.15	0.13	0.58	0.13	0.58	0.02	0.09	0.21	0.91	0.70	3.05	0.09	0.41	9.22E-06	4.04E-05
ES-38	0.06	0.02	0.61	0.15	0.61	0.15	0.39	0.10	0.88	0.22	1.09	0.27	0.38	0.09	1.31E-05	3.27E-06
ES-39	1.54	0.39	1.80	0.45	1.80	0.45	5.21E-02	0.01	34.57	8.64	27.01	6.75	14.82	3.70	3.04E-04	7.59E-05
ES-40	1.54	0.39	1.80	0.45	1.80	0.45	5.21E-02	0.01	34.57	8.64	27.01	6.75	14.82	3.70	3.04E-04	7.59E-05
ES-41	1.54	0.39	1.80	0.45	1.80	0.45	5.21E-02	0.01	34.57	8.64	27.01	6.75	14.82	3.70	3.04E-04	7.59E-05
ES-42	1.54	0.39	1.80	0.45	1.80	0.45	5.21E-02	0.01	34.57	8.64	27.01	6.75	14.82	3.70	3.04E-04	7.59E-05
ES-43	1.54	0.39	1.80	0.45	1.80	0.45	5.21E-02	0.01	34.57	8.64	27.01	6.75	14.82	3.70	3.04E-04	7.59E-05
ES-44	1.54	0.39	1.80	0.45	1.80	0.45	5.21E-02	0.01	34.57	8.64	27.01	6.75	14.82	3.70	3.04E-04	7.59E-05
TK3-10		0.11	<u> </u>	0.000		5 005 00							0.37	1.61		
FUG		0.11		0.022		5.39E-03							5.13E-03	0.023		
TOTAL:		81.59		153.66		153.66		27.89		344.86		818.79		158.85		6.28E-02

Estimated Emission Calculations Attached (totals and per Unit Ref. No.)

<sup>a</sup> PM, PM-10, PM 2.5, and VOC should also be split up by component and reported under the Proposed Permit Limits for Toxic Pollutants/HAPs. <sup>b</sup> PM-10 and PM 2.5 includes filterable and condensable.

<sup>c</sup> lb/hr proposed permit limits reflect the worst-case hourly emissions at normal operations.

<sup>d</sup> tons/yr proposed permit limits reflect the annual operation for all four SCCTs as follows: 12,960 hours normal operation with a maximum of 3,000 hours on fuel oil and 2,000 startups and 2,000 shutdowns with a maximum of 480 startups and 480 shutdowns on fuel oil.

# PROPOSED PERMIT LIMITS FOR TOXIC POLLUTANTS/HAPS:

Company	/ Name:	Virginia	Electric a	and Power	Company				Date: Ju	uly 31, 2023	3	Registra	ation Nur	nber: PR	O 50396	26
						Prope	osed Per	mit Limit	s for Toxic	HAP Poll	utants*					
	HAP	Name:	HAP	Name:	HAP	Name:		Name:		Name:		Name:	HAP	Name:	HAP	Name:
Unit Ref. No.	<u>C</u>	<u>\S #:</u>	<u>C4</u>	<u>\S #:</u>	<u>CA</u>	<u>\S #:</u>	<u>C/</u>	<u>AS #:</u>	<u>C/</u>	<u>AS #:</u>	<u>C/</u>	<u>\S #:</u>	<u>C/</u>	<u>\S #:</u>	<u>C</u>	<u>AS #:</u>
	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/y	r Ibs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
				Γ		See Ap	opendix	B, Tables	s B-6, B-7,	and B-8	1	Γ		Γ		
TOTAL:																

Estimated Emission Calculations Attached (totals and per Unit Ref. No.)

\* Specify the name of the toxic pollutant/HAP for each Unit Ref. No. along with the respective CAS Number. Toxic Pollutant means a pollutant on the designated list in the Form 7 Instructions document. Particulate matter and volatile organic compounds are not toxic pollutants as generic classes of substances, but individual substances within these classes may be toxic pollutants because their toxic properties or because a TLV (tm) has been established.

# PROPOSED PERMIT LIMITS FOR OTHER REGULATED POLLUTANTS:

Company Name:       Virginia Electric and Power Company       Date:       July 31, 2023       Registration Number:       PRO 5
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						Propose	d Permit	Limits for	Other Re	egulated Po	ollutants	•				
Unit Ref. No.	Pollutar H <sub>2</sub> S		<u>Polluta</u>	int Name:	<u>Polluta</u>	<u>nt Name:</u>	<u>Polluta</u>	int Name:	<u>Polluta</u>	int Name:	<u>Polluta</u>	nt Name:	<u>Polluta</u>	ant Name:	<u>Polluta</u>	ant Name:
	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
ES-33 <sup>a</sup>	5.60 (NG) 5.50 (NGwH2) 3.00 (Fuel Oil)															
ES-34 <sup>a</sup>	5.60 (NG) 5.50 (NGwH2) 3.00 (Fuel Oil))															
ES-35 <sup>a</sup>	5.60 (NG) 5.50 (NGwH2) 3.00 (Fuel Oil)															
ES-36 <sup>a</sup>	5.60 (NG) 5.50 (NGwH2) 3.00 (Fuel Oil)															
ES-33-ES- 36 (12mo rolling) <sup>b</sup>	(1 401 011)	18.63														
ES-37	4.89E-03	2.14E-02														
ES-38	2.98E-02	7.46E-03														
ES-39	3.99E-03	9.97E-04														
ES-40	3.99E-03	9.97E-04														
ES-41	3.99E-03	9.97E-04														
ES-42	3.99E-03	9.97E-04														
ES-43	3.99E-03	9.97E-04														
ES-44	3.99E-03	9.97E-04														
TOTAL:		18.66														

Estimated Emission Calculations Attached (totals and per Unit Ref. No.)

a lb/hr proposed permit limits reflect the worst-case hourly emissions at normal operations.

<sup>b</sup> tons/yr proposed permit limits reflect the annual operation for all four SCCTs as follows: 12,960 hours normal operation with a maximum of 3,000 hours on fuel oil and 2,000 startups and 2,000 shutdowns with a maximum of 480 startups and 480 shutdowns on fuel oil.

# PROPOSED PERMIT LIMITS FOR GREENHOUSE GASES (GHGs) ON MASS BASIS: FOR PSD MAJOR SOURCES ONLY

Company Name: Virginia Electric and Power Company	Date: July 31, 2023	Registration Number: PRO 50396-26
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					Prop	osed Permi	it Limits fo	r GHG Poll	utants on	Mass Basis	6			
	C	<b>CO</b> <sub>2</sub>	N	I <sub>2</sub> O	C	CH₄	HF	Cs	PF	Cs	S	F <sub>6</sub>	Tota	GHGs
Unit Ref. No.	(Carbo	n Dioxide)	(Nitrou	ıs Oxide)	(Me	thane)	• •	ofluoro- oons)	•	luoro- oons)		ulfur luoride)		
	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
ES-33 <sup>a</sup>	399,823	547,737	3.24	2.05	16.22	13.86							399,842	547,753
ES-34 <sup>a</sup>	399,823	547,737	3.24	2.05	16.22	13.86							399,842	547,753
ES-35 <sup>a</sup>	399,823	547,737	3.24	2.05	16.22	13.86							399,842	547,753
ES-36 <sup>a</sup>	399,823	547,737	3.24	2.05	16.22	13.86							399,842	547,753
ES-33-ES- 36 (12mo rolling) <sup>b</sup>	N/A	2,190,950	N/A	8.18	N/A	55.42							N/A	2,191,013
ES-37	2,200	9,634	4.1E-03	1.8E-02	4.1E-02	0.18							2,200	9,634
ES-38	237	59	1.9E-03	4.8E-04	9.6E-03	2.4E-03							237	59
ES-39	5,501	1,375	4.5E-02	1.1E-02	2.2E-01	5.6E-02							5,501	1,375
ES-40	5,501	1,375	4.5E-02	1.1E-02	2.2E-01	5.6E-02							5,501	1,375
ES-41	5,501	1,375	4.5E-02	1.1E-02	2.2E-01	5.6E-02							5,501	1,375
ES-42	5,501	1,375	4.5E-02	1.1E-02	2.2E-01	5.6E-02							5,501	1,375
ES-43	5,501	1,375	4.5E-02	1.1E-02	2.2E-01	5.6E-02							5,501	1,375
ES-44	5,501	1,375	4.5E-02	1.1E-02	2.2E-01	5.6E-02							5,501	1,375
СВ											2.05E-03	0.009	0.002	0.009
FUG	0.04	0.16			1.27	5.58							1.31	5.74
TOTAL:		2,208,891		8.28		61.54						0.009		2,208,961

Estimated Emission Calculations Attached (totals and per Unit Ref. No.)

a lb/hr proposed permit limits reflect the worst-case hourly emissions at normal operations only for either natural gas or fuel oil.

<sup>b</sup> tons/yr proposed permit limits reflect the annual operation for all four SCCTs as follows: 12,960 hours normal operation with a maximum of 3,000 hours on fuel oil and 2,000 startups and 2,000 shutdowns with a maximum of 480 startups and 480 shutdowns on fuel oil.

# PROPOSED PERMIT LIMITS FOR GREENHOUSE GASES (GHGs) ON CO2 EQUIVALENT EMISSIONS (CO2e) BASIS: FOR PSD MAJOR SOURCES ONLY

Company Name:	Virginia Electric and Power Company	Date:	July 31, 2023	Registration Number:	PRO 50396-26
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					Proposed	Permit Lim	its for GH	G Pollutant	s on CO₂ E	Equivalent	Basis			
	(		N	2 <b>0</b>	C	H₄	HF	Cs	PF	Cs	S	F <sub>6</sub>	Tota	GHGs
Unit Ref. No.	(Carbo	n Dioxide)	(Nitrou	ıs Oxide)	(Met	thane)		ofluoro- oons)	•	luoro- oons)	•	ulfur luoride)		
	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
ES-33 <sup>a</sup>	399,823	547,737	966.58	609.50	405.44	346.38							401,195	548,693
ES-34 <sup>a</sup>	399,823	547,737	966.58	609.50	405.44	346.38							401,195	548,693
ES-35 <sup>a</sup>	399,823	547,737	966.58	609.50	405.44	346.38							401,195	548,693
ES-36 <sup>a</sup>	399,823	547,737	966.58	609.50	405.44	346.38							401,195	548,693
ES-33-ES- 36 (12mo rolling) <sup>b</sup>	N/A	2,190,950	N/A	2,438	N/A	1,386							N/A	2,194,773
ES-37	2,200	9,634	1.24	5.41	1.04	4.54							2,202	9,644
ES-38	237	59	0.57	0.14	0.24	0.06							238	59
ES-39	5,501	1,375	13.30	3.32	5.58	1.39							5,520	1,380
ES-40	5,501	1,375	13.30	3.32	5.58	1.39							5,520	1,380
ES-41	5,501	1,375	13.30	3.32	5.58	1.39							5,520	1,380
ES-42	5,501	1,375	13.30	3.32	5.58	1.39							5,520	1,380
ES-43	5,501	1,375	13.30	3.32	5.58	1.39							5,520	1,380
ES-44	5,501	1,375	13.30	3.32	5.58	1.39							5,520	1,380
СВ											47	204	47	204
FUG	0.04	0.16		1	31.90	139.58							31.94	139.73
TOTAL:	FUG 0.04	2,208,891		2,463		1,538						204		2,213,100

Estimated Emission Calculations Attached (totals and per Unit Ref. No.)

a lb/hr proposed permit limits reflect the worst-case hourly emissions at normal operations only for either natural gas or fuel oil.

<sup>b</sup> tons/yr proposed permit limits reflect the annual operation for all four SCCTs as follows: 12,960 hours normal operation with a maximum of 3,000 hours on fuel oil and 2,000 startups and 2,000 shutdowns with a maximum of 480 startups and 480 shutdowns on fuel oil.

# **OPERATING PERIODS:**

Company Name:       Virginia Electric and Power Company       Date:       July 31, 2023       Registration Number:       PRO 50396-26
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Unit	Percen	t Annual Use/T	hroughput by S	Season	Normal Process/Equ	ipment Operat	ing Schedule	Maximum Pr	ocess/Equipme Schedule	ent Operating
Ref.	December	March	June	September		Days per	Weeks per	Hours per	Days per	Weeks per
No.	February	Мау	August	November	Hours per Day	Week	Year	Day	Week	Year
CT1- CT4					3,240 hr/yr per turbine w turbine on fuel oil plus 2 shutdowns per year with and 480 shutdowns per	000 startups an a maximum of	d 2,000 480 startups			
FGH1					8,760 hr/yr per heater					
FWP					500 hr/yr					
EG1-6					500 hr/yr per engine					
СВ					24	7	52			
FUG					24	7	52			
TK3-10					24	7	52			

Maxir	num Facility Operating Sc	hedule
Hours per Day	Days per Week	Weeks per Year
24	7	52

# Appendix B Emissions Calculations



| ESTIMATED PERFORMANCE   | Units   | Case 1   | Case 8  | Case 2  | Case 9  | Case 15   
  | Case 3   | Case 10  | Case 16   | Case 21  
   | Case 26  | Case 4   | Case 11   | Case 17   
  | Case 22   | Case 27  | Case 5  | Case 12  | Case 18  | Case 23   
  | Case 28   | Case 6   | Case 13   
  | Case 19   | Case 24   | Case 29  | Case 7   | Case 14  
   | Case 20  | Case 25   | Case 30   |
|---|---|--|---|---|---
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--	--	---
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Case Comments		
  |  |  |   |  
   |  |  |   |   
  |   |  |   |  |  |   
  |   |  |   
  |   |   |  |  |  
   |  |   |   |
| Load Condition  | %   | BASE   | BASE  | BASE  | BASE  | BASE  
  | BASE   | BASE   | BASE  | BASE   
   | BASE   | 80.0%  | 80.0%   | 80.0%   
  | 80.0%   | 80.0%  | 70.0%   | 70.0%  | 70.0%  | 69.0%   
  | 69.0%   | 50.0%  | 50.0%   
  | 50.0%   | 50.0%   | 50.0%  | MECL   | MECL   
   | MECL   | MECL  | MECL  |
| Inlet Loss  | in H2O  | 4.41   | 4.39  | 4.45  | 4.52  | 4.36  
  | 3.91   | 4.19   | 4.43  | 4.2  
   | 4.1  | 2.97   | 3.19  | 3.41  
  | 3.34  | 3.09   | 2.47  | 2.57   | 2.77   | 2.63  
  | 2.51  | 2.46   | 2.34  
  | 1.96  | 1.86  | 1.77   | 1.95   | 1.91   
   | 1.66   | 1.88  | 1.65  |
| Exhaust Pressure Loss   | in H2O  | 11.56  | 11.58<br>98   | 11.37   | 11.62<br>98   | 11.82<br>59   
  | 9.57   | 10.43<br>98  | 11.83<br>59   | 11.88<br>29  
   | 12   | 7.2  | 7.8<br>98   | 8.82<br>59  
  | 9.1<br>29   | 8.9<br>-10   | 6.04  | 6.38<br>98   | 7.25   | 7.27  
  | 7.23  | 5.14   | 5.16<br>98  
  | 5.15<br>59  | 5.19<br>29  | 5.16<br>-10  | 3.89<br>107  | 3.87<br>98   
   | 3.63<br>59   | 3.77  | 3.58  |
| Ambient Temperature<br>Ambient Relative Humidity  | deg F   |  | 98<br>43  | 35  | 98<br>43  | 59  
  |  | 98<br>43   | 59<br>60  | 29   
   | -10  | 35   | 43  | 59  
  | 29  | -10  | 35  | 98<br>43   | 59   | 29  
  | -10   | 35   | 43  
  | 59  | 29<br>57  | -10  | 35   | 43   
   | 59   | 29  | -10   |
| Evap. Cooler Status   | 76  | 35<br>On   | 43<br>On  | 35<br>On  | 43<br>On  | On  
  | 35<br>Off  | 43<br>Off  | Off   | 57<br>Off  
   | Note   | 35<br>Off  | 43<br>Off   | Off   
  | Off   | S/<br>Note   | Off   | 43<br>Off  | Off  | 57<br>Off   
  | 57<br>Note  | 35<br>Off  | 43<br>Off   
  | Off   | 57<br>Off   | 57<br>Note   | Off  | 43<br>Off  
   | Off  | 57<br>Off   | Note  |
|   | er  | 90   | 90  | 90  | 90  | 90  
  | Uff  | Uff  | Uff   | Uff  
   | Note   | Uff  | Uff   | Uff   
  | Uff   | Note   | Uff   | Uff  | Uff  | Uπ  
  | Note  | Uff  | Uff   
  | Uff   | Uff   | Note   | Uff  | Uff  
   | Uff  | Uff   | Note  |
| Evap. Cooler Effectiveness<br>Eavporation rate  | 76  | 5.549  | 4.295   | 5.77  | 4.354   | 1.731   
  |  |  |   | | |
   |  |  |   |   
  |   |  |   |  |  |   
  |   |  |   
  |   |   |  |  |  
   |  |   |   |
|   | pps   | 5.549<br>On  | 4.295<br>On   | 5.//  | 4.354   | 1./31   
  |  |  |   | | | |
   |  |  |   |   
  |   |  |   |  |  |   
  |   |  |   
  |   |   |  |  |  
   |  |   |   |
| Wet Compression<br>Water Flow   | DDS   | 13.12  | 12.14   |   |   |   
  |  |  |   |  
   |  |  |   |   
  |   |  |   |  |  |   
  |   |  |   
  |   |   |  |  |  
   |  |   |   |
| Filter anti-icing   | pps   | off  | 0ff   | off   | off   | off   
  | off  | off  | off   | off  
   | off  | off  | off   | off   
  | off   | off  | off   | off  | off  | off   
  | off   | off  | off   
  | off   | off   | off  | off  | off  
   | off  | off   | off   |
| Fuel Type   |   | User Def Gas   | 13920895  | 011   | 011   | 011   
  | 011  | 0.1  | 011   | 011  
   | 011  | 0.1  | 011   | 011   
  | 011   | 011  | 011   | 011  | 011  | 011   
  | on  | 011  | 011   
  | 011   | 011   | 011  | 011  | 011  
   | 011  | 011   | 011   |
| Fuel HHV  | BTU/Ib  | 23,296   | 23,296  | 23.296  | 23,296  | 23,296  
  | 23,296   | 23,296   | 23,296  | 23,296   
   | 23,296   | 23.296   | 23,296  | 23.296  
  | 23,296  | 23.296   | 23,296  | 23,296   | 23,296   | 23.296  
  | 23.296  | 23,296   | 23.296  
  | 23.296  | 23.296  | 23,296   | 23,296   | 23,296   
   | 23,296   | 23.296  | 23,296  |
| Fuel Temperature  | deg F   | 60   | 60  | 60  | 60  | 60  
  | 60   | 60   | 60  | 60   
   | 60   | 60   | 60  | 60  
  | 60  | 60   | 60  | 60   | 60   | 60  
  | 60  | 60   | 60  
  | 60  | 60  | 60   | 60   | 60   
   | 60   | 60  | 60  |
| Output  | kW.   | 242,533  | 243,359   | 227,072   | 229,536   | 241,505   
  | 201,160  | 214,073  | 239,024   | 247,813  
   | 250,000  | 160,928  | 171,259   | 191,219   
  | 198,250   | 200,000  | 140,812   | 149,851  | 167,317  | 170,991   
  | 172,500   | 100,580  | 107,037   
  | 119,512   | 123,907   | 125,000  | 67,300   | 68,400   
   | 67,700   | 66,400  | 65,900  |
| Heat Rate (HHV)   | BTU/kWh   | 10,016   | 9,987   | 10,069  | 10.075  | 9,852   
  | 10,147   | 10,068   | 9,878   | 9,768  
   | 9,781  | 10,584   | 10,395  | 10,042  
  | 9,931   | 9,996  | 11,000  | 10,791   | 10,399   | 10,337  
  | 10,460  | 13,074   | 12,589  
  | 11,855  | 11,754  | 11,884   | 15,845   | 15,702   
   | 15,716   | 16,408  | 16,537  |
| Heat Cons. (HHV)  | MMBTU/hr  | 2,429  | 2,430   | 2,286   | 2,313   | 2,379   
  | 2,041  | 2,155  | 2,361   | 2,421  
   | 2,445  | 1,703  | 1,780   | 1,920   
  | 1,969   | 1,999  | 1,549   | 1,617  | 1,740  | 1,768   
  | 1,804   | 1,315  | 1,348   
  | 1,417   | 1,456   | 1,485  | 1,066  | 1,074  
   | 1,064  | 1,090   | 1,090   |
| Auxiliary Losses  | kW  | 6,457  | 6,457   | 6,271   | 6,271   | 6,271   
  | 6,246  | 6,246  | 6,246   | 6,246  
   | 7,534  | 6,246  | 6,246   | 6,246   
  | 6,246   | 7,534  | 6,246   | 6,246  | 6,246  | 6,246   
  | 7,534   | 6.246  | 6,246   
  | 6,246   | 6,246   | 7,534  | 6,246  | 6,246  
   | 6,246  | 6,246   | 7,534   |
| Output - Net  | kW  | 236,076  | 236,902   | 220,801   | 223,265   | 235,234   
  | 194,914  | 207,827  | 232,778   | 241,567  
   | 242,466  | 154,682  | 165,013   | 184,973   
  | 192,004   | 192,466  | 134,566   | 143,605  | 161,071  | 164,745   
  | 164,966   | 94,334   | 100,791   
  | 113,266   | 117,661   | 117,466  | 61,054   | 62,154   
   | 61,454   | 60,154  | 58,366  |
| Heat Rate (HHV) - Net   | BTU/kWh   | 10,291   | 10,260  | 10,355  | 10,358  | 10,116  
  | 10,472   | 10,370   | 10,143  | 10,021   
   | 10,085   | 11,011   | 10,789  | 10,380  
  | 10,254  | 10,387   | 11,511  | 11,261   | 10,802   | 10,729  
  | 10,938  | 13,940   | 13,370  
  | 12,510  | 12,379  | 12,646   | 17,464   | 17,280   
   | 17,314   | 18,111  | 18,671  |
| Exhaust Flow  | x10^3 lb/hr   | 4167   | 4172  | 4134  | 4178  | 4221  
  | 3791   | 3959   | 4224  | 4238   
   | 4285   | 3301   | 3448  | 3697  
  | 3772  | 3732   | 3012  | 3099   | 3332   | 3346  
  | 3337  | 2780   | 2783  
  | 2782  | 2793  | 2785   | 2418   | 2413   
   | 2337   | 2380  | 2320  |
| Exhaust Temperature   | deg F   | 1215   | 1215  | 1215  | 1215  | 1207  
  | 1215   | 1215   | 1207  | 1201   
   | 1170   | 1197   | 1181  | 1143  
  | 1120  | 1119   | 1215  | 1213   | 1169   | 1156  
  | 1157  | 1215   | 1215  
  | 1215  | 1215  | 1215   | 1215   | 1215   
   | 1215   | 1215  | 1215  |
| Exhaust MolWt   | lb/lbmol  | 27.89  | 27.94   | 28.1  | 28.13   | 28.33   
  | 28.19  | 28.2   | 28.35   | 28.42  
   | 28.44  | 28.21  | 28.23   | 28.39   
  | 28.46   | 28.48  | 28.21   | 28.22  | 28.39  | 28.46   
  | 28.47   | 28.24  | 28.25   
  | 28.4  | 28.46   | 28.48  | 28.27  | 28.29  
   | 28.45  | 28.52   | 28.53   |
| Exhaust Energy  | MMBTU/hr  | 1269.2   | 1277.1  | 1244  | 1264.6  | 1297  
  | 1134.8   | 1193.7   | 1295.7  | 1321.3   
   | 1338.5   | 969.2  | 1003.3  | 1062.6  
  | 1084  | 1107.7   | 899.5   | 930.2  | 982.7  | 996.5   
  | 1026.7  | 827.1  | 834.7   
  | 856.1   | 878   | 902.1  | 717.5  | 721  
   | 715.7  | 744.1   | 747.4   | | | |
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| EXHAUST ANALYSIS % VOL.   |   | Case 1   | Case 8  | Case 2  | Case 9  | Case 15   
  | Case 3   | Case 10  | Case 16   | Case 21  
   | Case 26  | Case 4   | Case 11   | Case 17   
  | Case 22   | Case 27  | Case 5  | Case 12  | Case 18  | Case 23   
  | Case 28   | Case 6   | Case 13   
  | Case 19   | Case 24   | Case 29  | Case 7   | Case 14  
   | Case 20  | Case 25   | Case 30   |
| Argon   |   | 0.84   | 0.84  | 0.87  | 0.87  | 0.87  
  | 0.86   | 0.87   | 0.87  | 0.9  
   | 0.89   | 0.87   | 0.86  | 0.9   
  | 0.89  | 0.9  | 0.87  | 0.87   | 0.89   | 0.9   
  | 0.89  | 0.87   | 0.87  
  | 0.89  | 0.89  | 0.89   | 0.89   | 0.88   
   | 0.9  | 0.9   | 0.9   |
| Nitrogen  |   | 70.85  | 71.2  | 72.31   | 72.56   | 73.96   
  | 72.96  | 73.05  | 74.16   | 74.61  
   | 74.81  | 73.08  | 73.2  | 74.38   
  | 74.89   | 75   | 73.09   | 73.17  | 74.36  | 74.85   
  | 74.98   | 73.31  | 73.38   
  | 74.43   | 74.89   | 75.02  | 73.48  | 73.59  
   | 74.73  | 75.25   | 75.37   |
| Oxygen  |   | 10.52  | 10.6  | 11.28   | 11.33   | 11.5  
  | 11.65  | 11.58  | 11.62   | 11.54  
   | 11.59  | 12   | 12.03   | 12.25   
  | 12.33   | 12.15  | 12.03   | 11.94  | 12.21  | 12.23   
  | 12.07   | 12.69  | 12.54   
  | 12.41   | 12.34   | 12.19  | 13.2   | 13.16  
   | 13.28  | 13.37   | 13.22   |
| Carbon Dioxide  |   | 4.37   | 4.37  | 4.17  | 4.18  | 4.29  
  | 4.08   | 4.12   | 4.26  | 4.36   
   | 4.36   | 3.91   | 3.92  | 3.96  
  | 3.99  | 4.1  | 3.9   | 3.96   | 3.98   | 4.04  
  | 4.14  | 3.59   | 3.68  
  | 3.89  | 3.99  | 4.08   | 3.35   | 3.39   
   | 3.48   | 3.51  | 3.61  |
| Water   |   | 13.42  | 12.99   | 11.37   | 11.06   | 9.38  
  | 10.45  | 10.38  | 9.09  | 8.6  
   | 8.35   | 10.14  | 9.99  | 8.52  
  | 7.9   | 7.85   | 10.11   | 10.06  | 8.56   | 7.98  
  | 7.92  | 9.54   | 9.53  
  | 8.38  | 7.89  | 7.82   | 9.08   | 8.98   
   | 7.61   | 6.97  | 6.9   | | | |
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| EMISSIONS RESULTS (per unit)  | Units<br>ppmvd @ 15% O2   | Case 1<br>25   | Case 8<br>25  | Case 2<br>25  | Case 9<br>25  | Case 15<br>25   
  | Case 3<br>25   | Case 10<br>25  | Case 16   | Case 21  
   | Case 26  | Case 4   | Case 11   | Case 17   
  | Case 22   | Case 27  | Case 5  | Case 12<br>25  | Case 18<br>25  | Case 23<br>25   
  | Case 28<br>25   | Case 6<br>25   | Case 13<br>25   
  | Case 19<br>25   | Case 24<br>25   | Case 29<br>25  | Case 7<br>25   | Case 14<br>25  
   | Case 20<br>25  | Case 25<br>25   | Case 30<br>25   | | | |
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| NO. 15 NO2  |   |  |   |   |   |   
  |  |  | 25  | 25   
   | 25   | 25   | 25  | 25  
  | 25  | 25   | 25  |  |  |   
  |   |  |   
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   |  |   |   |
| NOx AS NO2  | lb/hr   | 231.7  | 231.9   | 218.1   | 220.6   | 226.9   
  | 194.6  | 205.5  | 25  | 25 230.9   
   | 25<br>233.3  | 25<br>162.4  | 25<br>169.6   | 25<br>183.1   
  | 25 187.7  | 25<br>190.7  | 25<br>147.7   | 154.1  | 165.8  | 168.5   
  | 172.1   | 125.2  | 128.4   
  | 135.1   | 138.8   | 141.6  | 101.6  | 102.4  
   | 101.4  | 103.7   | 103.8   | | | |
| NOx AS NO2  | lb/hr<br>lb/MMBtu   |  |   |   |   |   
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   |  |   |   |
| NOx AS NO2<br>CO  | lb/hr<br>lb/MMBtu<br>ppmvd  | 231.7<br>0.0954<br>9   | 231.9<br>0.0954<br>9  | 218.1<br>0.0954<br>9  | 220.6<br>0.0954<br>9  | 226.9<br>0.0954<br>9  
  | 194.6<br>0.0953<br>9   | 205.5<br>0.0953<br>9   | 225<br>0.0953<br>9  | 230.9<br>0.0954<br>9   
   | 233.3<br>0.0954<br>9   | 162.4<br>0.0953<br>9   | 169.6<br>0.0953<br>9  | 183.1<br>0.0954<br>9  
  | 187.7<br>0.0953<br>9  | 190.7<br>0.0954<br>9   | 147.7<br>0.0954<br>9  | 154.1<br>0.0953<br>9   | 165.8<br>0.0953<br>9   | 168.5<br>0.0953<br>9  
  | 172.1<br>0.0954<br>9  | 125.2<br>0.0952<br>9   | 128.4<br>0.0953<br>9  
  | 135.1<br>0.0953<br>9  | 138.8<br>0.0953<br>9  | 141.6<br>0.0953<br>9   | 101.6<br>0.0953<br>9   | 102.4<br>0.0953<br>9   
   | 101.4<br>0.0953<br>9   | 103.7<br>0.0952<br>9  | 103.8<br>0.0953<br>9  |
| NOx AS NO2<br>CO<br>CO  | Ib/hr<br>Ib/MMBtu<br>ppmvd<br>Ib/hr   | 231.7<br>0.0954<br>9<br>34.2   | 231.9<br>0.0954<br>9<br>34.4  | 218.1<br>0.0954<br>9<br>34.5  | 220.6<br>0.0954<br>9<br>35  | 226.9<br>0.0954<br>9<br>35.7  
  | 194.6<br>0.0953<br>9<br>31.9   | 205.5<br>0.0953<br>9<br>33.3   | 225<br>0.0953<br>9<br>35.8  | 230.9<br>0.0954<br>9<br>36.1   
   | 233.3<br>0.0954<br>9<br>36.6   | 162.4<br>0.0953<br>9<br>27.8   | 169.6<br>0.0953<br>9<br>29.1  | 183.1<br>0.0954<br>9<br>31.5  
  | 187.7<br>0.0953<br>9<br>32.3  | 190.7<br>0.0954<br>9<br>32   | 147.7<br>0.0954<br>9<br>25.4  | 154.1<br>0.0953<br>9<br>26.1   | 165.8<br>0.0953<br>9<br>28.4   | 168.5<br>0.0953<br>9<br>28.6  
  | 172.1<br>0.0954<br>9<br>28.6  | 125.2<br>0.0952<br>9<br>23.6   | 128.4<br>0.0953<br>9<br>23.6  
  | 135.1<br>0.0953<br>9<br>23.8  | 138.8<br>0.0953<br>9<br>23.9  | 141.6<br>0.0953<br>9<br>23.9   | 101.6<br>0.0953<br>9<br>20.6   | 102.4<br>0.0953<br>9<br>20.6   
   | 101.4<br>0.0953<br>9<br>20.1   | 103.7<br>0.0952<br>9<br>20.6  | 103.8<br>0.0953<br>9<br>20  |
| NOx AS NO2<br>CO<br>CO<br>VOC   | Ib/hr<br>Ib/MMBtu<br>ppmvd<br>Ib/hr<br>ppmvw  | 231.7<br>0.0954<br>9<br>34.2<br>1.4  | 231.9<br>0.0954<br>9<br>34.4<br>1.4   | 218.1<br>0.0954<br>9<br>34.5<br>1.4   | 220.6<br>0.0954<br>9<br>35<br>1.4   | 226.9<br>0.0954<br>9<br>35.7<br>1.4   
  | 194.6<br>0.0953<br>9<br>31.9<br>1.4  | 205.5<br>0.0953<br>9<br>33.3<br>1.4  | 225<br>0.0953<br>9<br>35.8<br>1.4   | 230.9<br>0.0954<br>9<br>36.1<br>1.4  
   | 233.3<br>0.0954<br>9<br>36.6<br>1.4  | 162.4<br>0.0953<br>9<br>27.8<br>1.4  | 169.6<br>0.0953<br>9<br>29.1<br>1.4   | 183.1<br>0.0954<br>9<br>31.5<br>1.4   
  | 187.7<br>0.0953<br>9<br>32.3<br>1.4   | 190.7<br>0.0954<br>9<br>32<br>1.4  | 147.7<br>0.0954<br>9<br>25.4<br>1.4   | 154.1<br>0.0953<br>9<br>26.1<br>1.4  | 165.8<br>0.0953<br>9<br>28.4<br>1.4  | 168.5<br>0.0953<br>9<br>28.6<br>1.4   
  | 172.1<br>0.0954<br>9<br>28.6<br>1.4   | 125.2<br>0.0952<br>9<br>23.6<br>1.4  | 128.4<br>0.0953<br>9<br>23.6<br>1.4   
  | 135.1<br>0.0953<br>9<br>23.8<br>1.4   | 138.8<br>0.0953<br>9<br>23.9<br>1.4   | 141.6<br>0.0953<br>9<br>23.9<br>1.4  | 101.6<br>0.0953<br>9<br>20.6<br>1.4  | 102.4<br>0.0953<br>9<br>20.6<br>1.4  
   | 101.4<br>0.0953<br>9<br>20.1<br>1.4  | 103.7<br>0.0952<br>9<br>20.6<br>1.4   | 103.8<br>0.0953<br>9<br>20<br>1.4   |
| NOx AS NO2<br>CO<br>CO<br>VOC<br>VOC  | Ib/hr<br>Ib/MMBtu<br>ppmvd<br>Ib/hr<br>ppmvw<br>Ib/hr   | 231.7<br>0.0954<br>9<br>34.2<br>1.4<br>3.52  | 231.9<br>0.0954<br>9<br>34.4<br>1.4<br>3.52   | 218.1<br>0.0954<br>9<br>34.5<br>1.4<br>3.47   | 220.6<br>0.0954<br>9<br>35<br>1.4<br>3.5  | 226.9<br>0.0954<br>9<br>35.7<br>1.4<br>3.51   
  | 194.6<br>0.0953<br>9<br>31.9<br>1.4<br>3.17  | 205.5<br>0.0953<br>9<br>33.3<br>1.4<br>3.31  | 225<br>0.0953<br>9<br>35.8<br>1.4<br>3.51   | 230.9<br>0.0954<br>9<br>36.1<br>1.4<br>3.52  
   | 233.3<br>0.0954<br>9<br>36.6<br>1.4<br>3.55  | 162.4<br>0.0953<br>9<br>27.8<br>1.4<br>2.76  | 169.6<br>0.0953<br>9<br>29.1<br>1.4<br>2.88   | 183.1<br>0.0954<br>9<br>31.5<br>1.4<br>3.07   
  | 187.7<br>0.0953<br>9<br>32.3<br>1.4<br>3.13   | 190.7<br>0.0954<br>9<br>32<br>1.4<br>3.09  | 147.7<br>0.0954<br>9<br>25.4<br>1.4<br>2.52   | 154.1<br>0.0953<br>9<br>26.1<br>1.4<br>2.59  | 165.8<br>0.0953<br>9<br>28.4<br>1.4<br>2.77  | 168.5<br>0.0953<br>9<br>28.6<br>1.4<br>2.77   
  | 172.1<br>0.0954<br>9<br>28.6<br>1.4<br>2.76   | 125.2<br>0.0952<br>9<br>23.6<br>1.4<br>2.32  | 128.4<br>0.0953<br>9<br>23.6<br>1.4<br>2.32   
  | 135.1<br>0.0953<br>9<br>23.8<br>1.4<br>2.31   | 138.8<br>0.0953<br>9<br>23.9<br>1.4<br>2.31   | 141.6<br>0.0953<br>9<br>23.9<br>1.4<br>2.31  | 101.6<br>0.0953<br>9<br>20.6<br>1.4<br>2.02  | 102.4<br>0.0953<br>9<br>20.6<br>1.4<br>2.01  
   | 101.4<br>0.0953<br>9<br>20.1<br>1.4<br>1.94  | 103.7<br>0.0952<br>9<br>20.6<br>1.4<br>1.97   | 103.8<br>0.0953<br>9<br>20<br>1.4<br>1.92   |
| NDx AS NO2<br>CO<br>CO<br>VOC<br>VOC<br>Formaldehyde  | Ib/hr<br>Ib/MMBtu<br>ppmvd<br>Ib/hr<br>ppmvw  | 231.7<br>0.0954<br>9<br>34.2<br>1.4<br>3.52<br>182   | 231.9<br>0.0954<br>9<br>34.4<br>1.4<br>3.52<br>182  | 218.1<br>0.0954<br>9<br>34.5<br>1.4<br>3.47<br>182  | 220.6<br>0.0954<br>9<br>35<br>1.4<br>3.5<br>182   | 226.9<br>9<br>35.7<br>1.4<br>3.51<br>182  
  | 194.6<br>0.0953<br>9<br>31.9<br>1.4<br>3.17<br>182   | 205.5<br>0.0953<br>9<br>33.3<br>1.4<br>3.31<br>182   | 225<br>0.0953<br>9<br>35.8<br>1.4<br>3.51<br>182  | 230.9<br>0.0954<br>9<br>36.1<br>1.4<br>3.52<br>182   
   | 233.3<br>0.0954<br>9<br>36.6<br>1.4<br>3.55<br>182   | 162.4<br>0.0953<br>9<br>27.8<br>1.4<br>2.76<br>182   | 169.6<br>0.0953<br>9<br>29.1<br>1.4<br>2.88<br>182  | 183.1<br>0.0954<br>9<br>31.5<br>1.4<br>3.07<br>182  
  | 187.7<br>0.0953<br>9<br>32.3<br>1.4<br>3.13<br>182  | 190.7<br>0.0954<br>9<br>32<br>1.4<br>3.09<br>182   | 147.7<br>0.0954<br>9<br>25.4<br>1.4<br>2.52<br>182  | 154.1<br>0.0953<br>9<br>26.1<br>1.4<br>2.59<br>182   | 165.8<br>0.0953<br>9<br>28.4<br>1.4<br>2.77<br>182   | 168.5<br>0.0953<br>9<br>28.6<br>1.4<br>2.77<br>182  
  | 172.1<br>0.0954<br>9<br>28.6<br>1.4<br>2.76<br>182  | 125.2<br>0.0952<br>9<br>23.6<br>1.4<br>2.32<br>182   | 128.4<br>0.0953<br>9<br>23.6<br>1.4<br>2.32<br>182  
  | 135.1<br>0.0953<br>9<br>23.8<br>1.4<br>2.31<br>182  | 138.8<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182  | 141.6<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182   | 101.6<br>0.0953<br>9<br>20.6<br>1.4<br>2.02<br>182   | 102.4<br>0.0953<br>9<br>20.6<br>1.4<br>2.01<br>182   
   | 101.4<br>0.0953<br>9<br>20.1<br>1.4<br>1.94<br>182   | 103.7<br>9<br>20.6<br>1.4<br>1.97<br>182  | 103.8<br>0.0953<br>9<br>20<br>1.4<br>1.92<br>182  |
| NOx AS NO2<br>CO<br>CO<br>VOC<br>VOC  | Ib/hr<br>Ib/MMBtu<br>ppmvd<br>Ib/hr<br>ppmvw<br>Ib/hr<br>ppbvd @ 15% O2   | 231.7<br>0.0954<br>9<br>34.2<br>1.4<br>3.52  | 231.9<br>0.0954<br>9<br>34.4<br>1.4<br>3.52   | 218.1<br>0.0954<br>9<br>34.5<br>1.4<br>3.47   | 220.6<br>0.0954<br>9<br>35<br>1.4<br>3.5  | 226.9<br>0.0954<br>9<br>35.7<br>1.4<br>3.51   
  | 194.6<br>0.0953<br>9<br>31.9<br>1.4<br>3.17  | 205.5<br>0.0953<br>9<br>33.3<br>1.4<br>3.31  | 225<br>0.0953<br>9<br>35.8<br>1.4<br>3.51   | 230.9<br>0.0954<br>9<br>36.1<br>1.4<br>3.52  
   | 233.3<br>0.0954<br>9<br>36.6<br>1.4<br>3.55  | 162.4<br>0.0953<br>9<br>27.8<br>1.4<br>2.76  | 169.6<br>0.0953<br>9<br>29.1<br>1.4<br>2.88   | 183.1<br>0.0954<br>9<br>31.5<br>1.4<br>3.07   
  | 187.7<br>0.0953<br>9<br>32.3<br>1.4<br>3.13   | 190.7<br>0.0954<br>9<br>32<br>1.4<br>3.09  | 147.7<br>0.0954<br>9<br>25.4<br>1.4<br>2.52   | 154.1<br>0.0953<br>9<br>26.1<br>1.4<br>2.59  | 165.8<br>0.0953<br>9<br>28.4<br>1.4<br>2.77  | 168.5<br>0.0953<br>9<br>28.6<br>1.4<br>2.77   
  | 172.1<br>0.0954<br>9<br>28.6<br>1.4<br>2.76   | 125.2<br>0.0952<br>9<br>23.6<br>1.4<br>2.32  | 128.4<br>0.0953<br>9<br>23.6<br>1.4<br>2.32   
  | 135.1<br>0.0953<br>9<br>23.8<br>1.4<br>2.31   | 138.8<br>0.0953<br>9<br>23.9<br>1.4<br>2.31   | 141.6<br>0.0953<br>9<br>23.9<br>1.4<br>2.31  | 101.6<br>0.0953<br>9<br>20.6<br>1.4<br>2.02  | 102.4<br>0.0953<br>9<br>20.6<br>1.4<br>2.01  
   | 101.4<br>0.0953<br>9<br>20.1<br>1.4<br>1.94  | 103.7<br>0.0952<br>9<br>20.6<br>1.4<br>1.97   | 103.8<br>0.0953<br>9<br>20<br>1.4<br>1.92   |
| NDx AS NO2<br>CO<br>CO<br>VOC<br>VOC<br>Formaldehyde  | Ib/hr<br>Ib/MMBtu<br>ppmvd<br>Ib/hr<br>ppmvw<br>Ib/hr<br>ppbvd @ 15% O2   | 231.7<br>0.0954<br>9<br>34.2<br>1.4<br>3.52<br>182   | 231.9<br>0.0954<br>9<br>34.4<br>1.4<br>3.52<br>182  | 218.1<br>0.0954<br>9<br>34.5<br>1.4<br>3.47<br>182  | 220.6<br>0.0954<br>9<br>35<br>1.4<br>3.5<br>182   | 226.9<br>9<br>35.7<br>1.4<br>3.51<br>182  
  | 194.6<br>0.0953<br>9<br>31.9<br>1.4<br>3.17<br>182   | 205.5<br>0.0953<br>9<br>33.3<br>1.4<br>3.31<br>182   | 225<br>0.0953<br>9<br>35.8<br>1.4<br>3.51<br>182  | 230.9<br>0.0954<br>9<br>36.1<br>1.4<br>3.52<br>182   
   | 233.3<br>0.0954<br>9<br>36.6<br>1.4<br>3.55<br>182   | 162.4<br>0.0953<br>9<br>27.8<br>1.4<br>2.76<br>182   | 169.6<br>0.0953<br>9<br>29.1<br>1.4<br>2.88<br>182  | 183.1<br>0.0954<br>9<br>31.5<br>1.4<br>3.07<br>182  
  | 187.7<br>0.0953<br>9<br>32.3<br>1.4<br>3.13<br>182  | 190.7<br>0.0954<br>9<br>32<br>1.4<br>3.09<br>182   | 147.7<br>0.0954<br>9<br>25.4<br>1.4<br>2.52<br>182  | 154.1<br>0.0953<br>9<br>26.1<br>1.4<br>2.59<br>182   | 165.8<br>0.0953<br>9<br>28.4<br>1.4<br>2.77<br>182   | 168.5<br>0.0953<br>9<br>28.6<br>1.4<br>2.77<br>182  
  | 172.1<br>0.0954<br>9<br>28.6<br>1.4<br>2.76<br>182  | 125.2<br>0.0952<br>9<br>23.6<br>1.4<br>2.32<br>182   | 128.4<br>0.0953<br>9<br>23.6<br>1.4<br>2.32<br>182  
  | 135.1<br>0.0953<br>9<br>23.8<br>1.4<br>2.31<br>182  | 138.8<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182  | 141.6<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182   | 101.6<br>0.0953<br>9<br>20.6<br>1.4<br>2.02<br>182   | 102.4<br>0.0953<br>9<br>20.6<br>1.4<br>2.01<br>182   
   | 101.4<br>0.0953<br>9<br>20.1<br>1.4<br>1.94<br>182   | 103.7<br>9<br>20.6<br>1.4<br>1.97<br>182  | 103.8<br>0.0953<br>9<br>20<br>1.4<br>1.92<br>182  |
| NOxAS NO2<br>CO<br>CO<br>VOC<br>VOC<br>Formaldehyde<br>Formaldehyde   | lb/hr<br>b/NMMBtu<br>ppmvd<br>lb/hr<br>ppmvw<br>lb/hr<br>ppbvd @ 15% O2<br>lb/h   | 231.7<br>0.0954<br>9<br>34.2<br>1.4<br>3.52<br>182<br>1.097  | 231.9<br>9<br>34.4<br>1.4<br>3.52<br>182<br>1.098   | 218.1<br>9<br>34.5<br>1.4<br>3.47<br>182<br>1.033   | 220.6<br>0.0954<br>9<br>35<br>1.4<br>3.5<br>182<br>1.045  | 226.9<br>9<br>35.7<br>1.4<br>3.51<br>182<br>1.075   
  | 194.6<br>0.0953<br>9<br>31.9<br>1.4<br>3.17<br>182<br>0.921<br>2.83  | 205.5<br>0.0953<br>9<br>33.3<br>1.4<br>3.31<br>182<br>0.973  | 225<br>0.0953<br>9<br>35.8<br>1.4<br>3.51<br>182<br>1.066<br>3.28   | 230.9<br>0.0954<br>9<br>36.1<br>1.4<br>3.52<br>182<br>1.094  
   | 233.3<br>0.0954<br>9<br>36.6<br>1.4<br>3.55<br>182<br>1.106  | 162.4<br>0.0953<br>9<br>27.8<br>1.4<br>2.76<br>182<br>0.769  | 169.6<br>0.0953<br>9<br>29.1<br>1.4<br>2.88<br>182<br>0.803   | 183.1<br>9<br>31.5<br>1.4<br>3.07<br>182<br>0.868   
  | 187.7<br>0.0953<br>9<br>32.3<br>1.4<br>3.13<br>182<br>0.890   | 190.7<br>0.0954<br>9<br>32<br>1.4<br>3.09<br>182<br>0.904  | 147.7<br>0.0954<br>9<br>25.4<br>1.4<br>2.52<br>182<br>0.699   | 154.1<br>0.0953<br>9<br>26.1<br>1.4<br>2.59<br>182<br>0.730  | 165.8<br>0.0953<br>9<br>28.4<br>1.4<br>2.77<br>182<br>0.786  | 168.5<br>0.0953<br>9<br>28.6<br>1.4<br>2.77<br>182<br>0.799   
  | 172.1<br>0.0954<br>9<br>28.6<br>1.4<br>2.76<br>182<br>0.816   | 125.2<br>9<br>23.6<br>1.4<br>2.32<br>182<br>0.593  | 128.4<br>9<br>23.6<br>1.4<br>2.32<br>182<br>0.608   
  | 135.1<br>0.0953<br>9<br>23.8<br>1.4<br>2.31<br>182<br>0.640   | 138.8<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.658   | 141.6<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.671  | 101.6<br>0.0953<br>9<br>20.6<br>1.4<br>2.02<br>182<br>0.481  | 102.4<br>0.0953<br>9<br>20.6<br>1.4<br>2.01<br>182<br>0.484  
   | 101.4<br>9<br>20.1<br>1.4<br>1.94<br>182<br>0.480  | 103.7<br>0.0952<br>9<br>20.6<br>1.4<br>1.97<br>182<br>0.491   | 103.8<br>9<br>20<br>1.4<br>1.92<br>182<br>0.492   |
| Noca 45 H02<br>CO<br>CO<br>VOC<br>VOC<br>Formaldehyde<br>Formaldehyde<br>SOX mass flow rate (as SO2)  | ib/hr<br>b/NMBtu<br>ppmvd<br>ib/hr<br>ppmvw<br>ib/hr<br>ppbvd @ 15% O2<br>ib/h<br>ib/hr   | 231.7<br>0.0954<br>9<br>34.2<br>1.4<br>3.52<br>182<br>1.097<br>3.37  | 231.9<br>9<br>34.4<br>1.4<br>3.52<br>182<br>1.098<br>3.37   | 218.1<br>9<br>34.5<br>1.4<br>3.47<br>182<br>1.033<br>3.18   | 220.6<br>0.0954<br>9<br>35<br>1.4<br>3.5<br>182<br>1.045<br>3.21  | 226.9<br>0.0954<br>9<br>35.7<br>1.4<br>3.51<br>182<br>1.075<br>3.3  
  | 194.6<br>0.0953<br>9<br>31.9<br>1.4<br>3.17<br>182<br>0.921  | 205.5<br>0.0953<br>9<br>33.3<br>1.4<br>3.31<br>182<br>0.973<br>2.99  | 225<br>0.0953<br>9<br>35.8<br>1.4<br>3.51<br>182<br>1.066   | 230.9<br>0.0954<br>9<br>36.1<br>1.4<br>3.52<br>182<br>1.094<br>3.36  
   | 233.3<br>9<br>36.6<br>1.4<br>3.55<br>182<br>1.106<br>3.4   | 162.4<br>0.0953<br>9<br>27.8<br>1.4<br>2.76<br>182<br>0.769<br>2.37  | 169.6<br>0.0953<br>9<br>29.1<br>1.4<br>2.88<br>182<br>0.803<br>2.47   | 183.1<br>9<br>31.5<br>1.4<br>3.07<br>182<br>0.868<br>2.67   
  | 187.7<br>0.0953<br>9<br>32.3<br>1.4<br>3.13<br>182<br>0.890<br>2.73   | 190.7<br>0.0954<br>9<br>32<br>1.4<br>3.09<br>182<br>0.904<br>2.78  | 147.7<br>0.0954<br>9<br>25.4<br>1.4<br>2.52<br>182<br>0.699<br>2.15   | 154.1<br>0.0953<br>9<br>26.1<br>1.4<br>2.59<br>182<br>0.730<br>2.25  | 165.8<br>9<br>28.4<br>1.4<br>2.77<br>182<br>0.786<br>2.42  | 168.5<br>9<br>28.6<br>1.4<br>2.77<br>182<br>0.799<br>2.45   
  | 172.1<br>9<br>28.6<br>1.4<br>2.76<br>182<br>0.816<br>2.51   | 125.2<br>9<br>23.6<br>1.4<br>2.32<br>182<br>0.593<br>1.83  | 128.4<br>9<br>23.6<br>1.4<br>2.32<br>182<br>0.608<br>1.87   
  | 135.1<br>9<br>23.8<br>1.4<br>2.31<br>182<br>0.640<br>1.97   | 138.8<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.658<br>2.02   | 141.6<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.671<br>2.06  | 101.6<br>0.0953<br>9<br>20.6<br>1.4<br>2.02<br>182<br>0.481<br>1.48  | 102.4<br>0.0953<br>9<br>20.6<br>1.4<br>2.01<br>182<br>0.484<br>1.49  
   | 101.4<br>9<br>20.1<br>1.4<br>1.94<br>182<br>0.480<br>1.48  | 103.7<br>9<br>20.6<br>1.4<br>1.97<br>182<br>0.491<br>1.51   | 103.8<br>0.0953<br>9<br>20<br>1.4<br>1.92<br>1.82<br>0.492<br>1.51  |
| NoCA 54 NO2<br>CO<br>CO<br>VOC<br>Formaldehyde<br>Formaldehyde<br>Formaldehyde<br>SOX maast flow rate (as SO2)<br>Sufur Mats at X2504   | Ib/hr<br>Ib/MMBtu<br>ppmvd<br>Ib/hr<br>pphva<br>pbvd @ 15% O2<br>Ib/hr<br>Ib/hr<br>Ib/hr  | 231.7<br>0.0954<br>9<br>34.2<br>1.4<br>3.52<br>1.097<br>3.37<br>0.258  | 231.9<br>0.0954<br>9<br>34.4<br>1.4<br>3.52<br>1.098<br>3.37<br>0.258   | 218.1<br>0.0954<br>9<br>34.5<br>1.4<br>3.47<br>182<br>1.033<br>3.18<br>0.243  | 220.6<br>0.0954<br>9<br>35<br>1.4<br>3.5<br>1.82<br>1.045<br>3.21<br>0.246  | 226.9<br>0.0954<br>9<br>35.7<br>1.4<br>3.51<br>182<br>1.075<br>3.3<br>0.253   
  | 194.6<br>0.0953<br>9<br>31.9<br>1.4<br>3.17<br>182<br>0.921<br>2.83<br>0.217   | 205.5<br>0.0953<br>9<br>33.3<br>1.4<br>3.31<br>182<br>0.973<br>2.99<br>0.229   | 225<br>0.0953<br>9<br>35.8<br>1.4<br>3.51<br>1.82<br>1.066<br>3.28<br>0.251   | 230.9<br>0.0954<br>9<br>36.1<br>1.4<br>3.52<br>1.094<br>3.36<br>0.257  
   | 233.3<br>9<br>36.6<br>1.4<br>3.55<br>182<br>1.106<br>3.4<br>0.26   | 162.4<br>0.0953<br>9<br>27.8<br>1.4<br>2.76<br>182<br>0.769<br>2.37<br>0.181   | 169.6<br>0.0953<br>9<br>29.1<br>1.4<br>2.88<br>182<br>0.803<br>2.47<br>0.189  | 183.1<br>0.0954<br>9<br>31.5<br>1.4<br>3.07<br>182<br>0.868<br>2.67<br>0.204  
  | 187.7<br>0.0953<br>9<br>32.3<br>1.4<br>3.13<br>182<br>0.890<br>2.73<br>0.209  | 190.7<br>0.0954<br>9<br>32<br>1.4<br>3.09<br>182<br>0.904<br>2.78<br>0.213   | 147.7<br>0.0954<br>9<br>25.4<br>1.4<br>2.52<br>1.82<br>0.699<br>2.15<br>0.165   | 154.1<br>0.0953<br>9<br>26.1<br>1.4<br>2.59<br>182<br>0.730<br>2.25<br>0.172   | 165.8<br>9<br>28.4<br>1.4<br>2.77<br>182<br>0.786<br>2.42<br>0.185   | 168.5<br>9<br>28.6<br>1.4<br>2.77<br>182<br>0.799<br>2.45<br>0.188  
  | 172.1<br>9<br>28.6<br>1.4<br>2.76<br>182<br>0.816<br>2.51<br>0.192  | 125.2<br>9<br>23.6<br>1.4<br>2.32<br>182<br>0.593<br>1.83<br>0.14  | 128.4<br>0.0953<br>9<br>23.6<br>1.4<br>2.32<br>1.82<br>0.608<br>1.87<br>0.143   
  | 135.1<br>9<br>23.8<br>1.4<br>2.31<br>182<br>0.640<br>1.97<br>0.151  | 138.8<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.658<br>2.02<br>0.155  | 141.6<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.671<br>2.06<br>0.158   | 101.6<br>0.0953<br>9<br>20.6<br>1.4<br>2.02<br>182<br>0.481<br>1.48<br>0.113   | 102.4<br>0.0953<br>9<br>20.6<br>1.4<br>2.01<br>182<br>0.484<br>1.49<br>0.114   
   | 101.4<br>0.0953<br>9<br>20.1<br>1.4<br>1.94<br>1.82<br>0.480<br>1.48<br>0.113  | 103.7<br>9<br>20.6<br>1.4<br>1.97<br>182<br>0.491<br>1.51<br>0.116  | 103.8<br>0.0953<br>9<br>20<br>1.4<br>1.92<br>1.82<br>0.492<br>1.51<br>0.116   |
| Noc. 45 H02<br>CO<br>CO<br>VOC<br>VOC<br>VOC<br>Formaldehyde<br>Formaldehyde<br>SOX mass flow rate (as SO2)<br>Sufur Mist as 142504<br>Filterable Particulates  | Ib/hr<br>Ib/MMBtu<br>ppmvd<br>Ib/hr<br>pptivd @ 15% O2<br>Ib/hr<br>Ib/hr<br>Ib/hr<br>Ib/hr  | 231.7<br>0.0954<br>9<br>34.2<br>1.4<br>3.52<br>1.82<br>1.097<br>3.37<br>0.258<br>3.4   | 231.9<br>0.0954<br>9<br>34.4<br>1.4<br>3.52<br>182<br>1.098<br>3.37<br>0.258<br>3.4   | 218.1<br>0.0954<br>9<br>34.5<br>1.4<br>3.47<br>182<br>1.033<br>3.18<br>0.243<br>3.4   | 220.6<br>0.0954<br>9<br>35<br>1.4<br>3.5<br>1.82<br>1.045<br>3.21<br>0.246<br>3.4   | 226.9<br>0.0954<br>9<br>35.7<br>1.4<br>3.51<br>182<br>1.075<br>3.3<br>0.253<br>3.4  
  | 194.6<br>0.0953<br>9<br>31.9<br>1.4<br>3.17<br>182<br>0.921<br>2.83<br>0.217<br>3.4  | 205.5<br>0.0953<br>9<br>33.3<br>1.4<br>3.31<br>182<br>0.973<br>2.99<br>0.229<br>3.4  | 225<br>0.0953<br>9<br>35.8<br>1.4<br>3.51<br>1.82<br>1.066<br>3.28<br>0.251<br>3.4  | 230.9<br>0.0954<br>9<br>36.1<br>1.4<br>3.52<br>1.094<br>3.36<br>0.257<br>3.4   
   | 233.3<br>9<br>36.6<br>1.4<br>3.55<br>182<br>1.106<br>3.4<br>0.26<br>3.4  | 162.4<br>0.0953<br>9<br>27.8<br>1.4<br>2.76<br>182<br>0.769<br>2.37<br>0.181<br>3.4  | 169.6<br>0.0953<br>9<br>29.1<br>1.4<br>2.88<br>182<br>0.803<br>2.47<br>0.189<br>3.4   | 183.1<br>0.0954<br>9<br>31.5<br>1.4<br>3.07<br>182<br>0.868<br>2.67<br>0.204<br>3.4   
  | 187.7<br>0.0953<br>9<br>32.3<br>1.4<br>3.13<br>182<br>0.890<br>2.73<br>0.209<br>3.4   | 190.7<br>0.0954<br>9<br>32<br>1.4<br>3.09<br>182<br>0.904<br>2.78<br>0.213<br>3.4  | 147.7<br>0.0954<br>9<br>25.4<br>1.4<br>2.52<br>182<br>0.699<br>2.15<br>0.165<br>3.4   | 154.1<br>0.0953<br>9<br>26.1<br>1.4<br>2.59<br>182<br>0.730<br>2.25<br>0.172<br>3.4  | 165.8<br>9<br>28.4<br>1.4<br>2.77<br>182<br>0.786<br>2.42<br>0.185<br>3.4  | 168.5<br>0.0953<br>9<br>28.6<br>1.4<br>2.77<br>182<br>0.799<br>2.45<br>0.188<br>3.4   
  | 172.1<br>9<br>28.6<br>1.4<br>2.76<br>182<br>0.816<br>2.51<br>0.192<br>3.4   | 125.2<br>9<br>23.6<br>1.4<br>2.32<br>182<br>0.593<br>1.83<br>0.14<br>3.4   | 128.4<br>0.0953<br>9<br>23.6<br>1.4<br>2.32<br>182<br>0.608<br>1.87<br>0.143<br>3.4   
  | 135.1<br>0.0953<br>9<br>23.8<br>1.4<br>2.31<br>182<br>0.640<br>1.97<br>0.151<br>3.4   | 138.8<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.658<br>2.02<br>0.155<br>3.4   | 141.6<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.671<br>2.06<br>0.158<br>3.4  | 101.6<br>0.0953<br>9<br>20.6<br>1.4<br>2.02<br>182<br>0.481<br>1.48<br>0.113<br>3.4  | 102.4<br>0.0953<br>9<br>20.6<br>1.4<br>2.01<br>182<br>0.484<br>1.49<br>0.114<br>3.4  
   | 101.4<br>0.0953<br>9<br>20.1<br>1.4<br>1.94<br>182<br>0.480<br>1.48<br>0.113<br>3.4  | 103.7<br>9<br>20.6<br>1.4<br>1.97<br>182<br>0.491<br>1.51<br>0.116<br>3.4   | 103.8<br>9<br>20<br>1.4<br>1.92<br>182<br>0.492<br>1.51<br>0.116<br>3.4   |
| Noc As No2<br>CC<br>CC<br>VOC<br>Formaldehyde<br>Formaldehyde<br>SOX mos Nor allo (as SO2)<br>SUMur Mat as H2SO4<br>Fitterable Particulates<br>Triada Particulates  | Ib/hr<br>Ib/MMBtu<br>pprivd<br>Ib/hr<br>pprivw<br>Ib/hr<br>pb/hr<br>Ib/hr<br>Ib/hr<br>Ib/hr<br>Ib/h   | 231.7<br>0.0954<br>9<br>34.2<br>1.4<br>3.52<br>182<br>1.097<br>3.37<br>0.258<br>3.4<br>6.9   | 231.9<br>9<br>34.4<br>1.4<br>3.52<br>1.098<br>3.37<br>0.258<br>3.4<br>6.9   | 218.1<br>0.0954<br>9<br>34.5<br>1.4<br>3.47<br>182<br>1.033<br>3.18<br>0.243<br>3.4<br>6.9  | 220.6<br>0.0954<br>9<br>35<br>1.4<br>3.5<br>182<br>1.045<br>3.21<br>0.246<br>3.4<br>6.9   | 226.9<br>0.0954<br>9<br>35.7<br>1.4<br>3.51<br>182<br>1.075<br>3.3<br>0.253<br>3.4<br>6.9   
  | 194.6<br>0.0953<br>9<br>31.9<br>1.4<br>3.17<br>182<br>0.921<br>2.83<br>0.217<br>3.4<br>6.9   | 205.5<br>0.0953<br>9<br>33.3<br>1.4<br>3.31<br>182<br>0.973<br>2.99<br>0.229<br>3.4<br>6.9   | 225<br>0.0953<br>9<br>35.8<br>1.4<br>3.51<br>182<br>1.066<br>3.28<br>0.251<br>3.4<br>6.9  | 230.9<br>0.0954<br>9<br>36.1<br>1.4<br>3.52<br>1.094<br>3.36<br>0.257<br>3.4<br>6.9  
   | 233.3<br>9<br>36.6<br>1.4<br>3.55<br>182<br>1.106<br>3.4<br>0.26<br>3.4<br>6.9   | 162.4<br>0.0953<br>9<br>27.8<br>1.4<br>2.76<br>182<br>0.769<br>2.37<br>0.181<br>3.4<br>6.9   | 169.6<br>0.0953<br>9<br>29.1<br>1.4<br>2.88<br>182<br>0.803<br>2.47<br>0.189<br>3.4<br>6.9  | 183.1<br>9<br>31.5<br>1.4<br>3.07<br>182<br>0.868<br>2.67<br>0.204<br>3.4<br>6.9  
  | 187.7<br>0.0953<br>9<br>32.3<br>1.4<br>3.13<br>182<br>0.890<br>2.73<br>0.209<br>3.4<br>6.9  | 190.7<br>0.0954<br>9<br>32<br>1.4<br>3.09<br>182<br>0.904<br>2.78<br>0.213<br>3.4<br>6.9   | 147.7<br>0.0954<br>9<br>25.4<br>1.4<br>2.52<br>182<br>0.699<br>2.15<br>0.165<br>3.4<br>6.8  | 154.1<br>0.0953<br>9<br>26.1<br>1.4<br>2.59<br>182<br>0.730<br>2.25<br>0.172<br>3.4<br>6.8   | 165.8<br>9<br>28.4<br>1.4<br>2.77<br>182<br>0.786<br>2.42<br>0.185<br>3.4<br>6.9   | 168.5<br>0.0953<br>9<br>28.6<br>1.4<br>2.77<br>182<br>0.799<br>2.45<br>0.188<br>3.4<br>6.9  
  | 172.1<br>9<br>28.6<br>1.4<br>2.76<br>182<br>0.816<br>2.51<br>0.192<br>3.4<br>6.9  | 125.2<br>9<br>23.6<br>1.4<br>2.32<br>182<br>0.593<br>1.83<br>0.14<br>3.4<br>6.8  | 128.4<br>0.0953<br>9<br>23.6<br>1.4<br>2.32<br>182<br>0.608<br>1.87<br>0.143<br>3.4<br>6.8  
  | 135.1<br>0.0953<br>9<br>23.8<br>1.4<br>2.31<br>182<br>0.640<br>1.97<br>0.151<br>3.4<br>6.8  | 138.8<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.658<br>2.02<br>0.155<br>3.4<br>6.8  | 141.6<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.671<br>2.06<br>0.158<br>3.4<br>6.8   | 101.6<br>0.0953<br>9<br>20.6<br>1.4<br>2.02<br>182<br>0.481<br>1.48<br>0.113<br>3.4<br>6.8   | 102.4<br>0.0953<br>9<br>20.6<br>1.4<br>2.01<br>182<br>0.484<br>1.49<br>0.114<br>3.4<br>6.8   
   | 101.4<br>0.0953<br>9<br>20.1<br>1.4<br>1.94<br>1.82<br>0.480<br>1.48<br>0.113<br>3.4<br>6.8  | 103.7<br>9<br>20.6<br>1.4<br>1.97<br>182<br>0.491<br>1.51<br>0.116<br>3.4<br>6.8  | 103.8<br>9<br>20<br>1.4<br>1.92<br>182<br>0.492<br>1.51<br>0.116<br>3.4<br>6.8  |
| Noc As No2<br>CC<br>CC<br>VOC<br>Formaldehyde<br>Formaldehyde<br>SOX mos Nor allo (as SO2)<br>SUMur Mat as H2SO4<br>Fitterable Particulates<br>Triada Particulates  | Ib/hr<br>Ib/MMBtu<br>pprivd<br>Ib/hr<br>pprivw<br>Ib/hr<br>pb/hr<br>Ib/hr<br>Ib/hr<br>Ib/hr<br>Ib/h   | 231.7<br>0.0954<br>9<br>34.2<br>1.4<br>3.52<br>182<br>1.097<br>3.37<br>0.258<br>3.4<br>6.9   | 231.9<br>9<br>34.4<br>1.4<br>3.52<br>1.098<br>3.37<br>0.258<br>3.4<br>6.9   | 218.1<br>0.0954<br>9<br>34.5<br>1.4<br>3.47<br>182<br>1.033<br>3.18<br>0.243<br>3.4<br>6.9  | 220.6<br>0.0954<br>9<br>35<br>1.4<br>3.5<br>182<br>1.045<br>3.21<br>0.246<br>3.4<br>6.9   | 226.9<br>0.0954<br>9<br>35.7<br>1.4<br>3.51<br>182<br>1.075<br>3.3<br>0.253<br>3.4<br>6.9   
  | 194.6<br>0.0953<br>9<br>31.9<br>1.4<br>3.17<br>182<br>0.921<br>2.83<br>0.217<br>3.4<br>6.9   | 205.5<br>0.0953<br>9<br>33.3<br>1.4<br>3.31<br>182<br>0.973<br>2.99<br>0.229<br>3.4<br>6.9   | 225<br>0.0953<br>9<br>35.8<br>1.4<br>3.51<br>182<br>1.066<br>3.28<br>0.251<br>3.4<br>6.9  | 230.9<br>0.0954<br>9<br>36.1<br>1.4<br>3.52<br>1.094<br>3.36<br>0.257<br>3.4<br>6.9  
   | 233.3<br>9<br>36.6<br>1.4<br>3.55<br>182<br>1.106<br>3.4<br>0.26<br>3.4<br>6.9   | 162.4<br>0.0953<br>9<br>27.8<br>1.4<br>2.76<br>182<br>0.769<br>2.37<br>0.181<br>3.4<br>6.9   | 169.6<br>0.0953<br>9<br>29.1<br>1.4<br>2.88<br>182<br>0.803<br>2.47<br>0.189<br>3.4<br>6.9  | 183.1<br>0.0954<br>9<br>31.5<br>1.4<br>3.07<br>182<br>0.868<br>2.67<br>0.204<br>3.4<br>6.9  
  | 187.7<br>0.0953<br>9<br>32.3<br>1.4<br>3.13<br>182<br>0.890<br>2.73<br>0.209<br>3.4<br>6.9  | 190.7<br>0.0954<br>9<br>32<br>1.4<br>3.09<br>182<br>0.904<br>2.78<br>0.213<br>3.4<br>6.9   | 147.7<br>0.0954<br>9<br>25.4<br>1.4<br>2.52<br>182<br>0.699<br>2.15<br>0.165<br>3.4<br>6.8  | 154.1<br>0.0953<br>9<br>26.1<br>1.4<br>2.59<br>182<br>0.730<br>2.25<br>0.172<br>3.4<br>6.8   | 165.8<br>9<br>28.4<br>1.4<br>2.77<br>182<br>0.786<br>2.42<br>0.185<br>3.4<br>6.9   | 168.5<br>0.0953<br>9<br>28.6<br>1.4<br>2.77<br>182<br>0.799<br>2.45<br>0.188<br>3.4<br>6.9  
  | 172.1<br>9<br>28.6<br>1.4<br>2.76<br>182<br>0.816<br>2.51<br>0.192<br>3.4<br>6.9  | 125.2<br>9<br>23.6<br>1.4<br>2.32<br>182<br>0.593<br>1.83<br>0.14<br>3.4<br>6.8  | 128.4<br>0.0953<br>9<br>23.6<br>1.4<br>2.32<br>182<br>0.608<br>1.87<br>0.143<br>3.4<br>6.8  
  | 135.1<br>0.0953<br>9<br>23.8<br>1.4<br>2.31<br>182<br>0.640<br>1.97<br>0.151<br>3.4<br>6.8  | 138.8<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.658<br>2.02<br>0.155<br>3.4<br>6.8  | 141.6<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.671<br>2.06<br>0.158<br>3.4<br>6.8   | 101.6<br>0.0953<br>9<br>20.6<br>1.4<br>2.02<br>182<br>0.481<br>1.48<br>0.113<br>3.4<br>6.8   | 102.4<br>0.0953<br>9<br>20.6<br>1.4<br>2.01<br>182<br>0.484<br>1.49<br>0.114<br>3.4<br>6.8   
   | 101.4<br>0.0953<br>9<br>20.1<br>1.4<br>1.94<br>1.82<br>0.480<br>1.48<br>0.113<br>3.4<br>6.8  | 103.7<br>9<br>20.6<br>1.4<br>1.97<br>182<br>0.491<br>1.51<br>0.116<br>3.4<br>6.8  | 103.8<br>9<br>20<br>1.4<br>1.92<br>182<br>0.492<br>1.51<br>0.116<br>3.4<br>6.8  |
| Noz Ak NO2<br>CC<br>CC<br>VOC<br>Formädehyde<br>Formädehyde<br>SOX mos Nor allo (as SO2)<br>Sulur Mist as H2SO4<br>Fittenbe Particulates<br>PMI0/L5   | B/hr<br>Ib/MMBtu<br>pprivd<br>Ib/hr<br>pprivw<br>Ib/hr<br>Ib/hr<br>Ib/hr<br>Ib/hr<br>Ib/h<br>Ib/h   | 231.7<br>0.0954<br>9<br>34.2<br>1.4<br>3.52<br>182<br>1.097<br>3.37<br>0.258<br>3.4<br>6.9<br>6.9  | 231.9<br>9<br>34.4<br>1.4<br>3.52<br>1.098<br>3.37<br>0.258<br>3.4<br>6.9<br>6.9  | 218.1<br>0.0954<br>9<br>34.5<br>1.4<br>3.47<br>182<br>1.033<br>3.18<br>0.243<br>3.4<br>6.9<br>6.9   | 220.6<br>0.0954<br>9<br>35<br>1.4<br>3.5<br>182<br>1.045<br>3.21<br>0.246<br>3.4<br>6.9<br>6.9  | 226.9<br>0.0954<br>9<br>35.7<br>1.4<br>3.51<br>182<br>1.075<br>3.3<br>0.253<br>3.4<br>6.9<br>6.9  
  | 194.6<br>0.0953<br>9<br>31.9<br>1.4<br>3.17<br>182<br>0.921<br>2.83<br>0.217<br>3.4<br>6.9<br>6.9  | 205.5<br>0.0953<br>9<br>33.3<br>1.4<br>3.31<br>182<br>0.973<br>2.99<br>0.229<br>3.4<br>6.9<br>6.9  | 225<br>0.0953<br>9<br>35.8<br>1.4<br>3.51<br>182<br>1.066<br>3.28<br>0.251<br>3.4<br>6.9<br>6.9   | 230.9<br>9<br>36.1<br>1.4<br>3.52<br>182<br>1.094<br>3.36<br>0.257<br>3.4<br>6.9<br>6.9  
   | 233.3<br>9<br>366.6<br>1.4<br>3.55<br>182<br>1.106<br>3.4<br>0.26<br>3.4<br>6.9<br>6.9   | 162.4<br>0.0953<br>9<br>27.8<br>1.4<br>2.76<br>182<br>0.769<br>2.37<br>0.181<br>3.4<br>6.9<br>6.9  | 169.6<br>0.0953<br>9<br>29.1<br>1.4<br>2.88<br>182<br>0.803<br>2.47<br>0.189<br>3.4<br>6.9<br>6.9   | 183.1<br>9<br>31.5<br>1.4<br>3.07<br>182<br>0.868<br>2.67<br>0.204<br>3.4<br>6.9<br>6.9   
  | 187.7<br>0.0953<br>9<br>32.3<br>1.4<br>3.13<br>182<br>0.890<br>2.73<br>0.209<br>3.4<br>6.9<br>6.9   | 190.7<br>0.0954<br>9<br>32<br>1.4<br>3.09<br>182<br>0.904<br>2.78<br>0.213<br>3.4<br>6.9<br>6.9  | 147.7<br>0.0954<br>9<br>25.4<br>1.4<br>2.52<br>182<br>0.699<br>2.15<br>0.165<br>3.4<br>6.8<br>6.8   | 154.1<br>0.0953<br>9<br>26.1<br>1.4<br>2.59<br>182<br>0.730<br>2.25<br>0.172<br>3.4<br>6.8<br>6.8  | 165.8<br>9<br>28.4<br>1.4<br>2.77<br>182<br>0.786<br>2.42<br>0.185<br>3.4<br>6.9<br>6.9  | 168.5<br>0.0953<br>9<br>28.6<br>1.4<br>2.77<br>182<br>0.799<br>2.45<br>0.188<br>3.4<br>6.9<br>6.9   
  | 172.1<br>9<br>28.6<br>1.4<br>2.76<br>182<br>0.816<br>2.51<br>0.192<br>3.4<br>6.9<br>6.9   | 125.2<br>9<br>23.6<br>1.4<br>2.32<br>182<br>0.593<br>1.83<br>0.14<br>3.4<br>6.8<br>6.8   | 128.4<br>0.0953<br>9<br>23.6<br>1.4<br>2.32<br>1.82<br>0.608<br>1.87<br>0.143<br>3.4<br>6.8<br>6.8  
  | 135.1<br>0.0953<br>9<br>23.8<br>1.4<br>2.31<br>182<br>0.640<br>1.97<br>0.151<br>3.4<br>6.8<br>6.8   | 138.8<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.658<br>2.02<br>0.155<br>3.4<br>6.8<br>6.8   | 141.6<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.671<br>2.06<br>0.158<br>3.4<br>6.8   | 101.6<br>0.0953<br>9<br>20.6<br>1.4<br>2.02<br>182<br>0.481<br>1.48<br>0.113<br>3.4<br>6.8<br>6.8  | 102.4<br>0.0953<br>9<br>20.6<br>1.4<br>2.01<br>182<br>0.484<br>1.49<br>0.114<br>3.4<br>6.8<br>6.8  
   | 101.4<br>0.0953<br>9<br>20.1<br>1.4<br>1.94<br>1.82<br>0.480<br>1.48<br>0.113<br>3.4<br>6.8<br>6.8   | 103.7<br>9<br>20.6<br>1.4<br>1.97<br>182<br>0.491<br>1.51<br>0.116<br>3.4<br>6.8<br>6.8   | 103.8<br>0.0953<br>9<br>20<br>1.4<br>1.92<br>1.51<br>0.116<br>3.4<br>6.8<br>6.8   |
| Nora Ak No2<br>CO<br>CO<br>VOC<br>VOC<br>Formatichyde<br>Formatichyde<br>Formatichyde<br>SoCn mass fore ratio (as SOC)<br>Sufur Maria H/SOCN<br>Sufur Maria H/SOCN<br>Tool Prior Maria   | ib/hr<br><b>b/MMBtu</b><br>ppmvd<br>ib/hr<br>ppmvw<br>ib/hr<br>ib/hr<br>ib/hr<br>ib/h<br>ib/h<br>ib/h<br>ib/h   | 231.7<br>9<br>34.2<br>1.4<br>3.52<br>1.097<br>3.37<br>0.258<br>3.4<br>6.9<br>6.9<br>8.17   | 231.9<br>0.0954<br>9<br>34.4<br>1.4<br>3.52<br>1.098<br>3.37<br>0.258<br>3.4<br>6.9<br>6.9<br>8.18  | 218.1<br>0.0954<br>9<br>34.5<br>1.4<br>3.47<br>182<br>1.033<br>3.18<br>0.243<br>3.4<br>6.9<br>6.9<br>7.69   | 220.6<br>0.0954<br>9<br>35<br>1.4<br>3.5<br>182<br>1.045<br>3.21<br>0.246<br>3.4<br>6.9<br>6.9<br>7.78  | 226.9<br>0.0954<br>9<br>35.7<br>1.4<br>3.51<br>1.075<br>3.3<br>0.253<br>3.4<br>6.9<br>6.9<br>8.01  | 194.6<br>0.0953<br>9<br>31.9<br>1.4<br>3.17<br>1.82<br>0.921<br>2.83<br>0.217<br>3.4<br>6.9<br>6.9<br>6.87  
  | 205.5<br>0.0953<br>9<br>33.3<br>1.4<br>3.31<br>1.4<br>0.973<br>0.229<br>3.4<br>6.9<br>6.9<br>7.25  | 225<br>0.0953<br>9<br>35.8<br>1.4<br>3.51<br>1.066<br>3.28<br>0.251<br>3.4<br>6.9<br>6.9<br>7.94  | 230.9<br>9<br>36.1<br>1.4<br>3.52<br>1.094<br>3.36<br>0.257<br>3.4<br>6.9<br>6.9<br>8.15   | 233.3<br>0.0954<br>9<br>366.6<br>1.4<br>3.55<br>182<br>1.106<br>3.4<br>0.26<br>3.4<br>6.9<br>8.23  
   | 162.4<br>0.0953<br>9<br>27.8<br>1.4<br>2.76<br>182<br>0.769<br>2.37<br>0.181<br>3.4<br>6.9<br>6.9<br>5.73  | 169.6<br>0.0953<br>9<br>29.1<br>1.4<br>2.88<br>182<br>0.803<br>2.47<br>0.189<br>3.4<br>6.9<br>6.9<br>5.99   | 183.1<br>0.0954<br>9<br>31.5<br>1.4<br>3.07<br>182<br>0.868<br>2.67<br>0.204<br>3.4<br>6.9<br>6.9<br>6.46  | 187.7<br>0.0953<br>9<br>32.3<br>1.4<br>3.13<br>182<br>0.890<br>2.73<br>0.209<br>3.4<br>6.9<br>6.9<br>6.63   |
190.7<br>0.0954<br>9<br>32<br>1.4<br>3.09<br>182<br>0.904<br>2.78<br>0.213<br>3.4<br>6.9<br>6.9<br>6.73  | 147.7<br>0.0954<br>9<br>25.4<br>1.4<br>2.52<br>182<br>0.699<br>2.15<br>0.165<br>3.4<br>6.8<br>6.8<br>5.21   | 154.1<br>0.0953<br>9<br>26.1<br>1.4<br>2.59<br>182<br>0.730<br>2.25<br>0.172<br>3.4<br>6.8<br>6.8<br>5.44  | 165.8<br>0.0953<br>9<br>28.4<br>1.4<br>2.77<br>182<br>0.786<br>2.42<br>0.185<br>3.4<br>6.9<br>6.9<br>5.85  | 168.5<br>0.0953<br>9<br>28.6<br>1.4<br>2.77<br>182<br>0.799<br>2.45<br>0.188<br>3.4<br>6.9<br>6.9<br>5.95   
  | 172.1<br>0.0954<br>9<br>28.6<br>1.4<br>2.76<br>182<br>0.816<br>2.51<br>0.192<br>3.4<br>6.9<br>6.9<br>6.07   | 125.2<br>9<br>23.6<br>1.4<br>2.32<br>182<br>0.593<br>1.83<br>0.14<br>3.4<br>6.8<br>6.8<br>4.43   | 128.4<br>0.0953<br>9<br>23.6<br>1.4<br>2.32<br>1.82<br>0.608<br>1.87<br>0.143<br>3.4<br>6.8<br>6.8<br>4.53  
  | 135.1<br>0.0953<br>9<br>23.8<br>1.4<br>2.31<br>182<br>0.640<br>1.97<br>0.151<br>3.4<br>6.8<br>6.8<br>6.8<br>4.77  | 138.8<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.658<br>2.02<br>0.155<br>3.4<br>6.8<br>6.8<br>6.8<br>4.9   | 141.6<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>1.4<br>2.31<br>1.82<br>0.671<br>2.06<br>0.158<br>3.4<br>6.8<br>6.8<br>6.8<br>5  | 101.6<br>0.0953<br>9<br>20.6<br>1.4<br>2.02<br>1.82<br>0.481<br>1.48<br>0.113<br>3.4<br>6.8<br>6.8<br>3.59   | 102.4<br>0.0953<br>9<br>20.6<br>1.4<br>2.01<br>182<br>0.484<br>1.49<br>0.114<br>3.4<br>6.8<br>6.8<br>3.61  | 101.4<br>0.0953<br>9<br>20.1<br>1.4<br>1.94<br>1.82<br>0.480<br>1.48<br>0.113<br>3.4<br>6.8<br>6.8<br>3.58  
  | 103.7<br>9<br>20.6<br>1.4<br>1.97<br>182<br>0.491<br>1.51<br>0.116<br>3.4<br>6.8<br>6.8<br>3.67   | 103.8<br>9<br>20<br>1.4<br>1.92<br>1.51<br>0.492<br>1.51<br>0.116<br>3.4<br>6.8<br>6.8<br>3.67  |
| No. As No2<br>CC<br>CC<br>ToC<br>VGC<br>VGC<br>Formaldehyde<br>Formaldehyde<br>Formaldehyde<br>SGM m64 as H25CH<br>Fitterabe Particulates<br>Total Particulates<br>PM10/2.5<br>SGM m64 as H25CH   | ib/trr<br><b>B/MMBtu</b><br>ppmvd<br>Ib/trr<br>ppmvw<br>Ib/trr<br>Ib/trr<br>Ib/trr<br>Ib/tr<br>Ib/tr<br>Ib/tr<br>Ib/tr  | 231.7<br>9<br>9<br>34.2<br>1.4<br>3.52<br>182<br>1.097<br>3.37<br>0.258<br>3.4<br>6.9<br>6.9<br>8.17<br>0.626  | 231.9<br>0.0954<br>9<br>34.4<br>1.4<br>3.52<br>1.098<br>3.37<br>0.258<br>3.4<br>6.9<br>6.9<br>8.18<br>0.626   | 218.1<br>0.0954<br>9<br>34.5<br>1.4<br>3.47<br>182<br>1.033<br>3.18<br>0.243<br>3.4<br>6.9<br>6.9<br>7.69<br>0.589  | 220.6<br>0.0954<br>9<br>35<br>1.4<br>3.5<br>1.82<br>1.045<br>3.21<br>0.246<br>3.4<br>6.9<br>6.9<br>7.78<br>0.596  | 226.9<br>0.0954<br>9<br>35.7<br>1.4<br>3.51<br>1.82<br>1.075<br>3.3<br>0.253<br>3.4<br>6.9<br>6.9<br>8.01<br>0.613  
  | 194.6<br>0.0953<br>9<br>31.9<br>1.4<br>3.17<br>182<br>0.921<br>2.83<br>0.217<br>3.4<br>6.9<br>6.9<br>6.87<br>0.526   | 205.5<br>0.0953<br>9<br>33.3<br>1.4<br>3.31<br>182<br>0.973<br>2.99<br>0.299<br>3.4<br>6.9<br>6.9<br>7.25<br>0.555   | 225<br>0.0953<br>9<br>35.8<br>1.4<br>3.51<br>182<br>1.066<br>3.28<br>0.251<br>3.4<br>6.9<br>6.9<br>7.94<br>0.608  | 230.9<br>0.0954<br>9<br>36.1<br>1.4<br>3.52<br>1.094<br>3.36<br>0.257<br>3.4<br>6.9<br>6.9<br>8.15<br>0.624  
   | 233.3<br>0.0954<br>9<br>36.6<br>1.4<br>3.55<br>182<br>1.106<br>3.4<br>0.26<br>3.4<br>6.9<br>6.9<br>8.23<br>0.63  | 162.4<br>0.0953<br>9<br>27.8<br>1.4<br>2.76<br>182<br>0.769<br>2.37<br>0.181<br>3.4<br>6.9<br>6.9<br>5.73<br>0.439   | 169.6<br>0.0953<br>9<br>29.1<br>1.4<br>2.88<br>182<br>0.803<br>2.47<br>0.189<br>3.4<br>6.9<br>6.9<br>5.99<br>0.459  | 183.1<br>0.0954<br>9<br>31.5<br>1.4<br>3.07<br>182<br>0.868<br>2.67<br>0.204<br>3.4<br>6.9<br>6.9<br>6.9<br>6.46<br>0.495   
  | 187.7<br>0.0953<br>9<br>32.3<br>1.4<br>3.13<br>182<br>0.890<br>2.73<br>0.209<br>3.4<br>6.9<br>6.9<br>6.63<br>0.507  | 190.7<br>0.0954<br>9<br>32<br>1.4<br>3.09<br>182<br>0.904<br>2.78<br>0.213<br>3.4<br>6.9<br>6.9<br>6.9<br>6.73<br>0.515  | 147.7<br>0.0954<br>9<br>25.4<br>1.4<br>2.52<br>182<br>0.699<br>2.15<br>0.165<br>3.4<br>6.8<br>6.8<br>6.8<br>5.21<br>0.399   | 154.1<br>0.0953<br>9<br>26.1<br>1.4<br>2.59<br>182<br>0.730<br>2.25<br>0.173<br>0.4<br>6.8<br>6.8<br>6.8<br>5.44<br>0.417  | 165.8<br>0.0953<br>9<br>28.4<br>1.4<br>2.77<br>182<br>0.786<br>2.42<br>0.185<br>3.4<br>6.9<br>6.9<br>5.85<br>0.448   | 168.5<br>0.0953<br>9<br>28.6<br>1.4<br>2.77<br>182<br>0.799<br>2.45<br>0.188<br>3.4<br>6.9<br>6.9<br>5.95<br>0.455  
  | 172.1<br>0.0954<br>9<br>28.6<br>1.4<br>2.76<br>182<br>0.816<br>2.51<br>0.192<br>3.4<br>6.9<br>6.9<br>6.9<br>6.07<br>0.465   | 125.2<br>0.0952<br>9<br>23.6<br>1.4<br>2.32<br>1.82<br>0.593<br>1.83<br>0.14<br>3.4<br>6.8<br>6.8<br>6.8<br>4.43<br>0.339  | 128.4<br>0.0953<br>9<br>22.6<br>1.4<br>2.32<br>1.82<br>0.608<br>1.87<br>0.143<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>4.53<br>0.347   
  | 135.1<br>0.0953<br>9<br>23.8<br>1.4<br>2.31<br>182<br>0.640<br>1.97<br>0.151<br>3.4<br>6.8<br>6.8<br>6.8<br>4.77<br>0.365   | 138.8<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.658<br>2.02<br>0.155<br>3.4<br>6.8<br>6.8<br>6.8<br>4.9<br>0.375  | 141.6<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.671<br>2.06<br>0.158<br>3.4<br>6.8<br>6.8<br>5<br>0.383  | 101.6<br>0.0953<br>9<br>20.6<br>1.4<br>2.02<br>1.4<br>2.02<br>1.4<br>2.02<br>1.4<br>2.02<br>1.4<br>2.02<br>1.4<br>2.02<br>1.4<br>2.02<br>1.4<br>2.03<br>1.4<br>2.0481<br>1.4<br>2.0481<br>3.3<br>4<br>6.8<br>6.8<br>3.59<br>0.275  | 102.4<br>0.0953<br>9<br>20.6<br>1.4<br>2.01<br>182<br>0.484<br>1.49<br>0.114<br>3.4<br>6.8<br>6.8<br>6.8<br>3.61<br>0.277  
   | 101.4<br>0.0953<br>9<br>20.1<br>1.4<br>1.94<br>1.82<br>0.480<br>1.48<br>0.148<br>0.480<br>1.48<br>0.58<br>0.274  | 103.7<br>0.0952<br>9<br>20.6<br>1.4<br>1.97<br>182<br>0.491<br>1.51<br>0.116<br>3.4<br>6.8<br>6.8<br>6.8<br>3.67<br>0.281   | 103.8<br>0.0953<br>9<br>20<br>1.4<br>1.92<br>1.82<br>0.492<br>1.51<br>0.116<br>3.4<br>6.8<br>6.8<br>3.67<br>0.281   |
| Not As No2<br>CO<br>CO<br>CO<br>VOC<br>Formabehyde<br>Formabehyde<br>SOr mass for vals (is SO2)<br>Solid with (is In 2024)<br>Formabehyde<br>SOr mass for vals (is SO2)<br>Solid With (is In 2024)<br>SO3 Particulates<br>SO5 mass flow rate (is SO2)<br>Solid With (is In 2020)<br>Filterable Particulates   | ib/hrt<br>ib/MMBu<br>b/MMBu<br>b/hr<br>b/hr<br>b/hr<br>b/hr<br>b/hr<br>b/hr<br>b/hr<br>b/hr<br>b/hr<br>b/hr   | 231.7<br>0.0954<br>9<br>34.2<br>1.4<br>3.52<br>1.097<br>3.37<br>0.258<br>3.4<br>6.9<br>8.17<br>0.626<br>3.4  | 231.9<br>0.0554<br>9<br>34.4<br>1.4<br>3.52<br>1.098<br>3.37<br>0.258<br>3.4<br>6.9<br>6.9<br>8.18<br>0.626<br>3.4  | 218.1<br>0.0954<br>9<br>34.5<br>1.4<br>3.47<br>182<br>1.033<br>3.18<br>0.243<br>3.4<br>6.9<br>7.69<br>0.589<br>3.4  | 220.6<br>0.0954<br>9<br>35<br>1.4<br>3.5<br>1.82<br>1.045<br>3.21<br>0.246<br>3.4<br>6.9<br>7.78<br>0.596<br>3.4  | 226.9<br>0.0954<br>9<br>35.7<br>1.4<br>3.51<br>1.82<br>1.075<br>3.3<br>0.253<br>3.4<br>6.9<br>6.9<br>8.01<br>0.613<br>3.4   
  | 194.6<br>0.0953<br>9<br>1.4<br>3.1.9<br>1.4<br>3.17<br>182<br>0.921<br>2.83<br>0.217<br>3.4<br>6.9<br>6.87<br>0.526<br>3.4   | 205.5<br>0.0953<br>9<br>33.3<br>1.4<br>3.31<br>182<br>0.973<br>2.99<br>0.229<br>3.4<br>6.9<br>7.25<br>0.5555<br>3.4  | 225<br>0.0953<br>9<br>35.8<br>1.4<br>3.51<br>182<br>1.066<br>3.28<br>0.251<br>3.4<br>6.9<br>6.9<br>7.94<br>0.608<br>3.4   | 230.9<br>0.0954<br>9<br>36.1<br>1.4<br>3.52<br>1.094<br>3.36<br>0.257<br>3.4<br>6.9<br>6.9<br>8.15<br>0.624<br>3.4   
   | 233.3<br>0.0954<br>9<br>36.6<br>1.4<br>3.55<br>182<br>1.106<br>3.4<br>0.26<br>3.4<br>6.9<br>6.9<br>8.23<br>0.63<br>3.4   | 162.4<br>00953<br>9<br>27.8<br>1.4<br>2.76<br>182<br>0.769<br>2.37<br>0.181<br>3.4<br>6.9<br>5.73<br>0.439<br>3.4  | 169.6<br>0.9533<br>9<br>29.1<br>1.4<br>2.81<br>1.82<br>0.803<br>2.47<br>0.189<br>3.4<br>6.9<br>5.99<br>0.459<br>3.4   | 183.1<br>0.0954<br>9<br>31.5<br>1.4<br>3.0,5<br>1.4<br>2.67<br>0.204<br>3.4<br>6.9<br>6.9<br>6.46<br>0.495<br>3.4   
  | 187.7<br>0.0953<br>9<br>32.3<br>1.4<br>3.13<br>182<br>0.890<br>2.73<br>0.209<br>3.4<br>6.9<br>6.63<br>0.507<br>3.4  | 190.7<br>0.0954<br>9<br>32<br>1.4<br>3.09<br>182<br>0.904<br>2.78<br>0.213<br>3.4<br>6.9<br>6.9<br>6.73<br>0.515<br>3.4  | 147.7<br>0.0954<br>9<br>25.4<br>1.4<br>2.52<br>182<br>0.699<br>2.15<br>0.165<br>3.4<br>6.8<br>5.21<br>0.399<br>3.4  | 154.1<br>0.0953<br>9<br>26.1<br>1.4<br>2.59<br>182<br>0.730<br>2.25<br>0.172<br>3.4<br>6.8<br>6.8<br>5.44<br>0.417<br>3.4  | 165.8<br>0.0953<br>9<br>28.4<br>1.4<br>2.77<br>182<br>0.786<br>2.42<br>0.185<br>3.4<br>6.9<br>5.85<br>0.448<br>3.4   | 168.5<br>00953<br>9<br>28.6<br>1.4<br>2.77<br>182<br>0.799<br>2.45<br>0.188<br>3.4<br>6.9<br>5.95<br>0.455<br>3.4   
  | 172.1<br>0.0954<br>9<br>28.6<br>1.4<br>2.76<br>182<br>0.816<br>2.51<br>0.192<br>3.4<br>6.9<br>6.07<br>0.465<br>3.4  | 125.2<br>0.0952<br>9<br>23.6<br>1.4<br>2.32<br>1.82<br>0.593<br>1.83<br>0.14<br>3.4<br>6.8<br>6.8<br>6.8<br>4.43<br>0.339  | 128.4<br>0.0953<br>9<br>22.6<br>1.4<br>2.32<br>1.82<br>0.608<br>1.87<br>0.143<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>4.53<br>0.347   
  | 135.1<br>0.0953<br>9<br>23.8<br>1.4<br>2.31<br>182<br>0.640<br>1.97<br>0.151<br>3.4<br>6.8<br>6.8<br>6.8<br>4.77<br>0.365<br>3.4  | 138.8<br>0.0993<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.658<br>2.02<br>0.155<br>3.4<br>6.8<br>6.8<br>4.9<br>0.375<br>3.4  | 141.6<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.671<br>2.06<br>0.158<br>3.4<br>6.8<br>6.8<br>5<br>0.383<br>3.4   | 101.6<br>0.0553<br>9<br>20.6<br>1.4<br>2.02<br>182<br>0.481<br>1.48<br>0.113<br>3.4<br>6.8<br>6.8<br>3.59<br>0.275<br>3.4  | 102.4<br>0.0953<br>9<br>20.6<br>1.4<br>2.01<br>182<br>0.484<br>1.49<br>0.114<br>3.4<br>6.8<br>3.61<br>0.277<br>3.4   
   | 101.4<br>0.0953<br>9<br>20.1<br>1.4<br>1.94<br>1.82<br>0.480<br>1.48<br>0.113<br>3.4<br>6.8<br>6.8<br>3.58<br>0.274<br>3.4   | 103.7<br>0.0552<br>9<br>20.6<br>1.4<br>1.9<br>1.51<br>0.116<br>3.4<br>6.8<br>6.8<br>3.67<br>0.281<br>3.4  | 103.8<br>0.0953<br>9<br>20<br>1.4<br>1.92<br>1.52<br>0.492<br>1.51<br>0.116<br>3.4<br>6.8<br>6.8<br>3.67<br>0.281<br>3.4  |
| Nora As No2<br>CO<br>CO<br>Formaldenhyde<br>Formaldenhyde<br>Formaldenhyde<br>SoX mass for orate (as SO2)<br>Sufur Mari as NSO4<br>Filterable Particulates<br>Total Particulates<br>Total Particulates<br>SoX mass for mails (as SO2)<br>Sufur Mari as NSO4<br>Filterable Particulates<br>Total Particulates<br>PMID/2.5  | ib/hr<br>bh/MMMbu<br>ppmrd<br>bh/tr<br>ppmrw<br>bh/tr<br>bh/tr<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/hr<br>ib/hr<br>ib/hr   | 231.7<br>0.0954<br>9<br>34.2<br>1.4<br>3.52<br>1.097<br>3.37<br>0.258<br>3.4<br>6.9<br>6.9<br>8.17<br>0.626<br>3.4<br>7.2  | 231.9<br>0.0954<br>9<br>34.4<br>1.4<br>3.52<br>1.82<br>1.098<br>3.37<br>0.258<br>3.4<br>6.9<br>6.9<br>8.18<br>0.626<br>3.4<br>7.2   | 218.1<br>0.0954<br>9<br>34.5<br>1.4<br>3.47<br>182<br>1.033<br>3.18<br>0.243<br>3.4<br>6.9<br>6.9<br>7.69<br>0.589<br>3.4<br>7.2  | 220.6<br>0.0954<br>9<br>35<br>1.4<br>3.5<br>1.82<br>1.045<br>3.21<br>0.246<br>3.4<br>6.9<br>6.9<br>7.78<br>0.596<br>3.4<br>7.2  | 2269<br>0.0954<br>9<br>35.7<br>1.4<br>3.51<br>182<br>1.075<br>3.3<br>0.253<br>3.4<br>6.9<br>6.9<br>8.01<br>0.613<br>3.4<br>7.2  
  | 194.6<br>0.0953<br>9<br>31.9<br>1.4<br>3.17<br>182<br>0.921<br>2.83<br>0.217<br>3.4<br>6.9<br>6.9<br>6.87<br>0.526<br>3.4<br>7.1   | 205.5<br>0.0953<br>9<br>33.3<br>1.4<br>3.3<br>1.82<br>0.973<br>2.99<br>0.229<br>3.4<br>6.9<br>6.9<br>6.9<br>7.25<br>0.555<br>3.4<br>7.2  | 225<br>0.0953<br>9<br>35.8<br>1.4<br>3.51<br>182<br>1.066<br>3.28<br>0.251<br>3.4<br>6.9<br>6.9<br>6.9<br>7.94<br>0.608<br>3.4<br>7.2   | 230.9<br>0.0954<br>9<br>36.1<br>1.4<br>3.52<br>1.094<br>3.36<br>0.257<br>3.4<br>6.9<br>6.9<br>8.15<br>0.624<br>3.4<br>7.2  
   | 233.3<br>0.0954<br>9<br>36.6<br>1.4<br>3.55<br>182<br>1.106<br>3.4<br>0.26<br>3.4<br>6.9<br>6.9<br>8.23<br>0.63<br>3.4<br>7.2  | 162.4<br>0.0953<br>9<br>27.8<br>1.4<br>2.76<br>182<br>0.769<br>2.37<br>0.181<br>3.4<br>6.9<br>6.9<br>5.73<br>0.439<br>3.4<br>7.1   | 169.6<br>0.0953<br>9<br>29.1<br>1.4<br>2.88<br>182<br>0.803<br>2.47<br>0.189<br>3.4<br>6.9<br>6.9<br>5.99<br>0.459<br>3.4<br>7.1  | 183.1<br>0.0954<br>9<br>31.5<br>1.4<br>3.07<br>182<br>0.868<br>2.67<br>0.204<br>3.4<br>6.9<br>6.9<br>6.46<br>0.495<br>3.4<br>7.1  
  | 187.7<br>0.0953<br>9<br>32.3<br>1.4<br>3.13<br>182<br>0.890<br>2.73<br>0.209<br>3.4<br>6.9<br>6.9<br>6.63<br>0.507<br>3.4<br>7.1  | 190.7<br>0.0954<br>9<br>32<br>1.4<br>3.09<br>182<br>0.904<br>2.78<br>0.213<br>3.4<br>6.9<br>6.9<br>6.73<br>0.515<br>3.4<br>7.1   | 147.7<br>0.0954<br>9<br>25.4<br>1.4<br>2.52<br>182<br>0.699<br>2.15<br>0.165<br>3.4<br>6.8<br>6.8<br>6.8<br>5.21<br>0.399<br>3.4<br>7   | 154.1<br>0.0953<br>9<br>26.1<br>1.4<br>2.59<br>182<br>0.730<br>2.25<br>0.172<br>3.4<br>6.8<br>6.8<br>5.44<br>0.417<br>3.4<br>7   | 165.8<br>0.0953<br>9<br>28.4<br>1.4<br>2.77<br>0.786<br>0.786<br>0.786<br>0.485<br>3.4<br>6.9<br>6.9<br>5.85<br>0.448<br>3.4<br>7.1  | 168.5<br>00953<br>9<br>28.6<br>1.4<br>2.77<br>182<br>0.799<br>2.45<br>0.188<br>3.4<br>6.9<br>6.9<br>5.95<br>0.455<br>3.4<br>7.1   
  | 172.1<br>0.0954<br>9<br>28.6<br>1.4<br>2.76<br>182<br>0.816<br>0.192<br>3.4<br>6.9<br>6.9<br>6.07<br>0.465<br>3.4<br>7.1  | 125.2<br>0.0952<br>9<br>23.6<br>1.4<br>2.32<br>1.82<br>0.593<br>1.83<br>0.14<br>3.4<br>6.8<br>6.8<br>6.8<br>4.43<br>0.339  | 128.4<br>0.0953<br>9<br>22.6<br>1.4<br>2.32<br>1.82<br>0.608<br>1.87<br>0.143<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>4.53<br>0.347   
  | 135.1<br>0.0953<br>9<br>23.8<br>1.4<br>2.31<br>182<br>0.640<br>1.97<br>0.151<br>3.4<br>6.8<br>6.8<br>6.8<br>4.77<br>0.365<br>3.4  | 138.8<br>0.0953<br>9<br>2.3.9<br>1.4<br>2.31<br>182<br>0.658<br>2.02<br>0.155<br>3.4<br>6.8<br>6.8<br>6.8<br>4.9<br>0.375<br>3.4<br>7   | 141.6<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.671<br>2.06<br>0.158<br>3.4<br>6.8<br>6.8<br>5<br>0.383<br>3.4   | 1016<br>0.0953<br>9<br>20.6<br>1.4<br>2.02<br>182<br>0.481<br>1.48<br>0.113<br>3.4<br>6.8<br>6.8<br>6.8<br>3.59<br>0.275<br>3.4<br>6.9   | 102.4<br>0.0953<br>9<br>20.6<br>1.4<br>20.1<br>182<br>0.484<br>1.49<br>0.114<br>3.4<br>6.8<br>6.8<br>3.61<br>0.277<br>3.4<br>6.9   
   | 1014<br>0.0953<br>9<br>20.1<br>1.4<br>194<br>182<br>0.480<br>1.48<br>0.113<br>3.4<br>6.8<br>6.8<br>6.8<br>3.58<br>0.274<br>3.4<br>6.9  | 103.7<br>0.0852<br>9<br>20.6<br>1.4<br>1.97<br>182<br>0.491<br>1.51<br>0.116<br>3.4<br>6.8<br>6.8<br>6.8<br>3.67<br>0.281<br>3.4<br>6.9   | 103.8<br>0.0553<br>9<br>20<br>1.4<br>1.92<br>1.82<br>0.492<br>1.51<br>0.116<br>3.4<br>6.8<br>6.8<br>6.8<br>3.67<br>0.281<br>3.4<br>6.9  |
| Not As No2<br>CO<br>CO<br>CO<br>VOC<br>Formatchyde<br>Formatchyde<br>Formatchyde<br>SOx mass for rate (as SO2)<br>Sulfur Mist as N2O4<br>Filterabe Prantculates<br>Total Prantculates<br>MIA(1).5<br>SOX mass for orate (as SO2)<br>Sulfur Mist as N2O4<br>Filterabe Prantculates<br>Total Prantculates<br>Total Prantculates<br>Total Prantculates<br>Total Prantculates<br>Total Prantculates<br>Total Prantculates<br>Total Prantculates   | ib/hr<br>b/hr<br>b/hr<br>p/mr<br>b/hr<br>p/hr<br>p/brd @ 15% 02<br>ib/hr<br>ib/hr<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h | 231.7<br>0.0554<br>9<br>34.2<br>1.4<br>3.52<br>1.097<br>3.37<br>0.258<br>3.4<br>6.9<br>8.17<br>0.626<br>3.4<br>7.2<br>7.2  | 231.9<br>0.0554<br>9<br>34.4<br>1.4<br>3.52<br>1.098<br>3.37<br>0.258<br>3.4<br>6.9<br>8.18<br>0.626<br>3.4<br>7.2<br>7.2   | 218.1<br>0.0954<br>9<br>34.5<br>1.4<br>3.47<br>182<br>1.033<br>3.18<br>0.243<br>3.4<br>6.9<br>6.9<br>7.69<br>0.589<br>3.4<br>7.2<br>7.2   | 220.6<br>0.0954<br>9<br>35<br>1.4<br>3.5<br>1.82<br>1.045<br>3.21<br>0.246<br>3.4<br>6.9<br>6.9<br>7.78<br>0.596<br>3.4<br>7.2<br>7.2   | 2269<br>00954<br>9<br>35.7<br>14<br>3.51<br>182<br>1.075<br>3.3<br>0.253<br>3.4<br>6.9<br>8.01<br>0.613<br>3.4<br>7.2<br>7.2  
  | 194,6<br>0.0953<br>9<br>31.9<br>1.4<br>3.17<br>182<br>0.921<br>2.83<br>0.217<br>3.4<br>6.9<br>6.87<br>0.526<br>3.4<br>7.1<br>7.1   | 205.5<br>0.0553<br>9<br>33.3<br>1.4<br>3.31<br>182<br>0.973<br>2.99<br>0.229<br>3.4<br>6.9<br>7.25<br>0.555<br>3.4<br>6.9<br>7.25<br>0.555<br>3.4<br>7.2<br>7.2  | 225<br>0.0953<br>9<br>35.8<br>1.4<br>3.51<br>182<br>1.066<br>0.251<br>3.4<br>6.9<br>7.94<br>0.608<br>3.4<br>7.2<br>7.2  | 230.9<br>0.0954<br>9<br>36.1<br>1.4<br>3.52<br>1.094<br>3.36<br>0.257<br>3.4<br>6.9<br>8.15<br>0.624<br>3.4<br>7.2<br>7.2  
   | 233.3<br>0.0954<br>9<br>36.6<br>1.4<br>3.55<br>182<br>1.106<br>3.4<br>0.26<br>3.4<br>6.9<br>6.9<br>8.23<br>0.63<br>3.4<br>7.2<br>7.2   | 162.4<br>0.0953<br>9<br>27.8<br>1.4<br>2.76<br>182<br>0.769<br>2.37<br>0.181<br>3.4<br>6.9<br>5.73<br>0.439<br>3.4<br>7.1<br>7.1   | 169.6<br>0.0953<br>9<br>29.1<br>14<br>2.88<br>182<br>0.803<br>2.47<br>0.189<br>3.4<br>6.9<br>5.99<br>0.459<br>3.4<br>6.9<br>5.99<br>0.459<br>3.4<br>7.1<br>7.1  | 183.1<br>0.0954<br>9<br>31.5<br>1.4<br>3.07<br>182<br>0.868<br>2.67<br>0.204<br>3.4<br>6.9<br>6.9<br>6.9<br>6.46<br>0.495<br>3.4<br>7.1<br>7.1<br>7.1   
  | 187.7<br>0.0953<br>9<br>32.3<br>1.4<br>3.13<br>182<br>0.890<br>2.73<br>0.209<br>3.4<br>6.9<br>6.63<br>0.507<br>3.4<br>7.1<br>7.1  | 190.7<br>0.0954<br>9<br>32<br>1.4<br>3.09<br>182<br>0.904<br>2.78<br>0.213<br>3.4<br>6.9<br>6.9<br>6.9<br>6.73<br>0.515<br>3.4<br>7.1<br>7.1   | 147.7<br>0.0954<br>9<br>25.4<br>1.4<br>2.52<br>182<br>0.699<br>2.15<br>0.165<br>3.4<br>6.8<br>6.8<br>6.8<br>5.21<br>0.399<br>3.4<br>7<br>7  | 154.1<br>0.0953<br>9<br>26.1<br>1.4<br>2.59<br>182<br>0.730<br>2.25<br>0.172<br>3.4<br>6.8<br>6.8<br>6.8<br>5.44<br>0.417<br>3.4<br>7<br>7   | 165.8<br>0.0953<br>9<br>28.4<br>1.4<br>2.77<br>182<br>0.786<br>2.42<br>0.185<br>3.4<br>6.9<br>6.9<br>5.85<br>0.448<br>3.4<br>7.1<br>7.1  | 168.5<br>00953<br>9<br>28.6<br>1.4<br>2.77<br>182<br>0.799<br>2.45<br>0.188<br>3.4<br>6.9<br>6.9<br>5.95<br>0.455<br>3.4<br>7.1<br>7.1  
  | 172.1<br>0.0954<br>9<br>28.6<br>1.4<br>2.76<br>182<br>0.816<br>2.51<br>0.192<br>3.4<br>6.9<br>6.9<br>6.07<br>0.465<br>3.4<br>7.1<br>7.1   | 125.2<br>0.0952<br>9<br>23.6<br>1.4<br>2.32<br>182<br>0.593<br>1.83<br>0.14<br>3.4<br>6.8<br>6.8<br>6.8<br>4.43<br>0.339<br>3.4<br>7<br>7  | 1284<br>0.0953<br>9<br>23.6<br>1.4<br>2.32<br>182<br>0.608<br>1.87<br>0.143<br>3.4<br>6.8<br>4.53<br>0.347<br>3.4<br>7<br>7<br>7  
  | 135.1<br>0.0953<br>9<br>23.8<br>1.4<br>2.31<br>182<br>0.640<br>1.97<br>0.151<br>3.4<br>6.8<br>6.8<br>6.8<br>4.77<br>0.365<br>3.4<br>7<br>7  | 138.8<br>0.0993<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.658<br>2.02<br>0.155<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>4.9<br>0.375<br>3.4<br>7<br>7  | 141.6<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.671<br>2.06<br>0.158<br>3.4<br>6.8<br>5<br>0.383<br>3.4<br>7<br>7<br>7   | 101.6<br>0.0953<br>9<br>20.6<br>1.4<br>2.02<br>182<br>0.481<br>3.4<br>6.8<br>0.113<br>3.4<br>6.8<br>3.59<br>0.275<br>3.4<br>6.9  | 102.4<br>0.0953<br>9<br>20.6<br>1.4<br>2.01<br>182<br>0.484<br>1.49<br>0.114<br>3.4<br>6.8<br>6.8<br>6.8<br>3.61<br>0.277<br>3.4<br>6.9<br>6.9   
   | 101.4<br>0.0953<br>9<br>20.1<br>1.4<br>1.94<br>1.94<br>1.94<br>1.82<br>0.480<br>0.113<br>3.4<br>6.8<br>3.58<br>0.274<br>3.4<br>6.9<br>6.9  | 103.7<br>0.0952<br>9<br>20.6<br>1.4<br>1.97<br>182<br>0.491<br>1.51<br>0.116<br>3.4<br>6.8<br>3.67<br>0.281<br>3.4<br>6.9<br>6.9  | 103.8<br>0.0953<br>9<br>20<br>1.4<br>1.92<br>182<br>0.492<br>1.51<br>0.116<br>3.4<br>6.8<br>3.67<br>0.281<br>3.4<br>6.9<br>6.9  |
| No. A No2<br>CO<br>CO<br>CO<br>Formaldehyde<br>Formaldehyde<br>Sort mask fore rate (ns SO2)<br>Sufur Mita ai NSO4<br>Filenable Princulates<br>Total Princulates<br>PM10/25<br>SOx mass flow rate (ns SO2)<br>Sufur Anticales<br>PM10/25<br>SOx mass flow rate (ns SO2)<br>Sufur Anticales<br>PM10/25<br>Sour sources<br>PM10/25<br>Sour sources<br>PM10/25<br>Static tacktoom (sources Tempering Ar)<br>Exhaut vel flow   | ib/hr<br>bh/MMMbu<br>ppmrd<br>bh/tr<br>ppmrw<br>bh/tr<br>bh/tr<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/hr<br>ib/hr<br>ib/hr   | 231.7<br>0.0554<br>9<br>3.4.2<br>1.4<br>3.52<br>1.097<br>0.258<br>3.4<br>6.9<br>6.9<br>8.17<br>0.626<br>3.4<br>7.2<br>7.2<br>3.694690  | 231.9<br>0.0954<br>9<br>34.4<br>1.4<br>3.52<br>1.82<br>1.098<br>3.37<br>0.258<br>3.4<br>6.9<br>6.9<br>8.18<br>0.626<br>3.4<br>7.2   | 218.1<br>0.0954<br>9<br>34.5<br>1.4<br>3.47<br>182<br>1.033<br>3.18<br>0.243<br>3.4<br>6.9<br>6.9<br>7.69<br>0.589<br>3.4<br>7.2  | 220.6<br>0.0954<br>9<br>35<br>1.4<br>3.5<br>1.82<br>1.045<br>3.21<br>0.246<br>3.4<br>6.9<br>6.9<br>7.78<br>0.596<br>3.4<br>7.2  | 2269<br>0.0954<br>9<br>35.7<br>1.4<br>3.51<br>182<br>1.075<br>3.3<br>0.253<br>3.4<br>6.9<br>6.9<br>8.01<br>0.613<br>3.4<br>7.2<br>7.2<br>3.574250   
  | 194.6<br>0.0553<br>9<br>31.9<br>1.4<br>3.17<br>182<br>0.921<br>2.83<br>0.217<br>3.4<br>6.9<br>6.9<br>6.9<br>6.87<br>0.526<br>3.4<br>7.1<br>7.1<br>3.1<br>83316830  | 205.5<br>0.0953<br>9<br>33.3<br>1.4<br>3.31<br>182<br>0.973<br>2.99<br>0.229<br>3.4<br>6.9<br>7.25<br>0.555<br>3.4<br>7.2<br>7.2<br>3.448600   | 225<br>0.0953<br>9<br>35.8<br>1.4<br>3.51<br>182<br>1.066<br>3.28<br>0.251<br>3.4<br>6.9<br>6.9<br>7.94<br>0.608<br>3.4<br>7.2<br>7.2<br>7.2  | 230.9<br>0.0954<br>9<br>36.1<br>1.4<br>3.52<br>1.82<br>1.094<br>3.36<br>0.257<br>3.4<br>6.9<br>6.9<br>6.9<br>8.15<br>0.624<br>3.4<br>7.2<br>7.2<br>3514710   
   | 233.3<br>00954<br>9<br>36.6<br>1.4<br>3.55<br>182<br>1.106<br>3.4<br>6.9<br>6.9<br>8.23<br>0.63<br>3.4<br>7.2<br>7.2<br>3401560  | 162.4<br>0.0953<br>9<br>27.8<br>1.4<br>2.76<br>182<br>0.769<br>2.37<br>0.181<br>3.4<br>6.9<br>5.73<br>0.439<br>3.4<br>7.1<br>7.1<br>2833560  | 169.6<br>0.0953<br>9<br>29.1<br>1.4<br>2.88<br>182<br>0.803<br>2.47<br>0.189<br>3.4<br>6.9<br>6.9<br>5.99<br>0.459<br>3.4<br>7.1  | 183.1<br>0.0954<br>9<br>31.5<br>1.4<br>3.07<br>182<br>0.868<br>2.67<br>0.204<br>3.4<br>6.9<br>6.9<br>6.46<br>0.495<br>3.4<br>7.1  
  | 187.7<br>0.0953<br>9<br>32.3<br>1.4<br>3.13<br>182<br>0.890<br>2.73<br>0.209<br>3.4<br>6.9<br>6.9<br>6.63<br>0.507<br>3.4<br>7.1  | 190.7<br>0.0954<br>9<br>32<br>1.4<br>3.09<br>182<br>0.904<br>2.78<br>0.213<br>3.4<br>6.9<br>6.9<br>6.73<br>0.515<br>3.4<br>7.1   | 147.7<br>0.0954<br>9<br>25.4<br>1.4<br>2.52<br>182<br>0.699<br>2.15<br>0.165<br>0.165<br>0.34<br>6.8<br>6.8<br>6.8<br>6.8<br>5.21<br>0.399<br>3.4<br>7<br>7<br>2631750  | 154.1<br>0.0953<br>9<br>26.1<br>1.4<br>2.59<br>182<br>0.730<br>2.25<br>0.172<br>3.4<br>6.8<br>6.8<br>5.44<br>0.417<br>3.4<br>7   | 165.8<br>0.0953<br>9<br>28.4<br>1.4<br>2.77<br>0.786<br>0.786<br>0.786<br>0.485<br>3.4<br>6.9<br>6.9<br>5.85<br>0.448<br>3.4<br>7.1  | 168.5<br>00953<br>9<br>28.6<br>1.4<br>2.77<br>182<br>0.799<br>2.45<br>0.188<br>3.4<br>6.9<br>6.9<br>5.95<br>0.455<br>3.4<br>7.1   
  | 172.1<br>0.0954<br>9<br>28.6<br>1.4<br>2.76<br>182<br>0.816<br>2.51<br>0.192<br>3.4<br>6.9<br>6.9<br>6.9<br>6.07<br>0.465<br>3.4<br>7.1<br>7.1<br>2613050   | 125.2<br>0.0952<br>9<br>23.6<br>1.4<br>2.32<br>182<br>0.593<br>1.83<br>0.134<br>6.8<br>6.8<br>4.43<br>0.339<br>3.4<br>7<br>7<br>2423830  | 128.4<br>0.0953<br>9<br>22.6<br>1.4<br>2.32<br>1.82<br>0.608<br>1.87<br>0.143<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>4.53<br>0.347   
  | 135.1<br>0.0953<br>9<br>23.8<br>1.4<br>2.31<br>182<br>0.640<br>1.97<br>0.151<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>7<br>7<br>2364210  | 138.8<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.658<br>2.02<br>0.155<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>0.375<br>3.4<br>7<br>7<br>2340570  | 141.6<br>0.0993<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.671<br>2.06<br>0.158<br>3.4<br>6.8<br>6.8<br>6.8<br>5<br>0.383<br>3.4<br>7<br>7<br>7   | 1016<br>0.0953<br>9<br>20.6<br>1.4<br>2.02<br>182<br>0.481<br>1.48<br>0.113<br>3.4<br>6.8<br>6.8<br>6.8<br>3.59<br>0.275<br>3.4<br>6.9   | 102.4<br>0.0953<br>9<br>20.6<br>1.4<br>20.1<br>182<br>0.484<br>1.49<br>0.114<br>3.4<br>6.8<br>6.8<br>3.61<br>0.277<br>3.4<br>6.9   
   | 1014<br>0.0953<br>9<br>20.1<br>1.4<br>194<br>182<br>0.480<br>1.48<br>0.113<br>3.4<br>6.8<br>6.8<br>6.8<br>3.58<br>0.274<br>3.4<br>6.9  | 103.7<br>0.0852<br>9<br>20.6<br>1.4<br>1.97<br>182<br>0.491<br>1.51<br>0.116<br>3.4<br>6.8<br>6.8<br>6.8<br>3.67<br>0.281<br>3.4<br>6.9   | 103.8<br>0.0953<br>9<br>20<br>1.4<br>1.92<br>1.82<br>0.492<br>1.51<br>0.116<br>3.4<br>6.8<br>6.8<br>3.67<br>0.281<br>3.4<br>6.9<br>6.9<br>9<br>6.9  |
| Noc Ak 1002<br>CO<br>CO<br>CO<br>VOC<br>Formatchryde<br>Formatchryde<br>Formatchryde<br>Sox mass for rate (as SO2)<br>Subur Mits as H2304<br>Fiterable Prantolates<br>Total Prantolates<br>Total Prantolates<br>Mitil(1),2<br>Sox mass for orate (as SO2)<br>Subur Mit as H2304<br>Fiterable Prantolates<br>Total Prantolates  | ib/rv<br>bb/MMMu<br>ppmvd<br>ib/rv<br>ppmvd<br>jb/rv<br>ppmvd<br>jb/rv<br>b/rv<br>b/rv<br>b/r<br>b/r<br>b/r<br>b/r<br>b/r<br>b/r<br>b/r<br>b/r<br>b/r<br>b/r              | 231.7<br>0.0954<br>9<br>34.2<br>1.4<br>3.52<br>1.297<br>3.37<br>0.258<br>3.4<br>6.9<br>6.9<br>6.9<br>8.17<br>0.626<br>3.4<br>7.2<br>7.2<br>3694690<br>130.68   | 231.9<br>0.0554<br>9<br>34.4<br>1.4<br>3.52<br>1.098<br>1.098<br>3.37<br>0.258<br>3.4<br>6.9<br>8.18<br>0.626<br>3.4<br>7.2<br>7.2<br>7.2<br>3677090<br>130.06  | 218.1<br>0.0954<br>9<br>34.5<br>14<br>3.47<br>182<br>1.033<br>3.18<br>0.243<br>3.4<br>6.9<br>7.69<br>0.589<br>3.4<br>7.2<br>7.2<br>7.2<br>3631610<br>128.45   | 220.6<br>0.0954<br>9<br>35<br>1.4<br>3.5<br>1.82<br>1.045<br>3.21<br>0.246<br>3.4<br>6.9<br>7.78<br>0.596<br>3.4<br>7.2<br>7.2<br>3.5<br>3.5<br>3.5<br>3.21<br>0.560<br>3.4<br>1.5<br>3.5<br>3.21<br>0.246<br>3.5<br>3.21<br>0.246<br>3.5<br>3.21<br>0.246<br>3.5<br>3.5<br>3.21<br>0.246<br>3.5<br>3.5<br>3.5<br>3.21<br>0.246<br>3.5<br>3.5<br>3.5<br>3.21<br>0.246<br>3.5<br>3.5<br>3.5<br>3.5<br>3.5<br>3.5<br>3.5<br>3.5   | 226.9<br>0.0354<br>9<br>3.5.7<br>1.4<br>3.51<br>1.82<br>1.075<br>3.3<br>0.253<br>3.4<br>6.9<br>8.01<br>0.613<br>3.4<br>7.2<br>7.2<br>3.574250<br>126.42  
   | 194,6<br>0.0953<br>9<br>31.9<br>1.4<br>3.17<br>182<br>0.9217<br>3.4<br>6.9<br>6.9<br>6.87<br>0.526<br>3.4<br>7.1<br>7.1<br>3316830<br>117.32   | 205.5<br>0.0953<br>9<br>33.3<br>1.4<br>3.31<br>182<br>0.973<br>2.99<br>0.229<br>3.4<br>6.9<br>7.25<br>0.555<br>3.4<br>7.2<br>7.2<br>7.2<br>3.448600<br>121.98  | 225<br>0.0953<br>9<br>35.8<br>1.4<br>3.51<br>182<br>1.066<br>0.251<br>3.28<br>0.251<br>3.4<br>6.9<br>7.94<br>0.608<br>3.4<br>7.2<br>7.2<br>7.2<br>3572250<br>126.35   | 230.9<br>0.0954<br>9<br>36.1<br>1.4<br>3.52<br>182<br>1.094<br>3.36<br>0.257<br>3.4<br>6.9<br>8.15<br>0.624<br>3.4<br>5.2<br>7.2<br>7.2<br>3514710<br>124.32  
  | 233.3<br>0.0954<br>9<br>36.6<br>1.4<br>3.5<br>182<br>1.106<br>3.4<br>0.25<br>3.4<br>6.9<br>6.9<br>8.23<br>0.63<br>3.4<br>7.2<br>7.2<br>3401560<br>120.32   | 162.4<br>0.0953<br>9<br>27.8<br>1.4<br>2.76<br>182<br>0.7659<br>2.37<br>0.181<br>3.4<br>6.9<br>5.73<br>0.439<br>3.4<br>7.1<br>7.1<br>7.1<br>2833560<br>100.23  | 169.6<br>0.0953<br>9<br>29.1<br>1.4<br>2.88<br>182<br>0.803<br>2.47<br>0.189<br>3.4<br>6.9<br>5.99<br>0.459<br>3.4<br>7.1<br>7.1<br>7.1<br>2899670<br>102.56  | 183.1<br>0.0954<br>9<br>31.5<br>1.4<br>3.07<br>182<br>0.868<br>0.204<br>3.4<br>6.9<br>6.9<br>6.9<br>6.46<br>0.495<br>3.4<br>7.1<br>7.1<br>2930220<br>103.64  
   | 187.7<br>0.0953<br>9<br>32.3<br>1.4<br>3.13<br>182<br>0.890<br>2.73<br>0.209<br>3.4<br>6.9<br>6.9<br>6.63<br>0.507<br>3.4<br>7.1<br>7.1<br>7.1<br>2885270<br>102.05   | 190.7<br>0.0954<br>9<br>32<br>1.4<br>3.09<br>182<br>0.904<br>2.78<br>0.213<br>3.4<br>6.9<br>6.73<br>0.515<br>3.4<br>7.1<br>7.1<br>2817480<br>99.66   | 147.7<br>0.0954<br>9<br>25.4<br>1.4<br>2.52<br>182<br>0.699<br>2.15<br>0.165<br>3.4<br>6.8<br>5.21<br>0.399<br>3.4<br>7<br>7<br>2631750<br>93.09  | 154.1<br>0.0953<br>9<br>26.1<br>1.4<br>2.59<br>182<br>0.730<br>2.25<br>0.172<br>3.4<br>6.8<br>6.8<br>5.44<br>0.417<br>3.4<br>7<br>7<br>26500870<br>95.18   | 165.8<br>0.0953<br>9<br>28.4<br>1.4<br>2.77<br>182<br>0.786<br>2.42<br>0.185<br>3.4<br>6.9<br>5.85<br>0.448<br>3.4<br>6.9<br>5.85<br>0.448<br>3.4<br>7.1<br>7.1<br>7.1<br>2710530<br>95.87   | 168.5<br>0.0953<br>9<br>28.6<br>1.4<br>2.77<br>182<br>0.799<br>2.45<br>0.188<br>3.4<br>6.9<br>5.95<br>0.455<br>3.4<br>7.1<br>7.1<br>2652390<br>93.82   
   | 172.1<br>0.0954<br>9<br>28.6<br>1.4<br>2.76<br>182<br>0.816<br>2.51<br>0.192<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>0.465<br>3.4<br>7.1<br>7.1<br>7.1<br>2613050<br>92.43   | 125.2<br>9<br>23.6<br>1.4<br>2.32<br>182<br>0.593<br>1.83<br>0.14<br>3.4<br>6.8<br>6.8<br>4.43<br>0.339<br>3.4<br>7<br>7<br>2422830<br>85.73   | 128.4<br>0.0953<br>9<br>22.6<br>1.4<br>2.32<br>182<br>0.608<br>1.87<br>0.143<br>3.4<br>6.8<br>4.53<br>0.347<br>3.4<br>7<br>7<br>2416380<br>85.47   
   | 135.1<br>0.0953<br>9<br>23.8<br>1.4<br>2.31<br>182<br>0.640<br>1.97<br>0.151<br>3.4<br>6.8<br>6.8<br>6.8<br>4.77<br>0.365<br>3.4<br>7<br>7<br>2364210<br>83.62  | 138.8<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.655<br>3.4<br>6.8<br>4.9<br>0.375<br>3.4<br>7<br>7<br>7<br>2340570<br>82.79   | 141.6<br>0.0993<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.671<br>2.06<br>0.158<br>3.4<br>6.8<br>5<br>0.383<br>3.4<br>7<br>7<br>2299240<br>81.33  | 101.6<br>0.0553<br>9<br>20.6<br>1.4<br>2.02<br>182<br>0.82<br>1.48<br>0.113<br>3.4<br>6.8<br>0.113<br>3.4<br>6.8<br>3.59<br>0.275<br>3.4<br>6.9<br>6.9<br>6.9<br>2104320<br>74.43  | 102.4<br>0.0953<br>9<br>20.6<br>1.4<br>2.01<br>182<br>0.84<br>1.49<br>0.114<br>3.4<br>6.8<br>3.61<br>0.277<br>3.4<br>6.9<br>6.9<br>6.9<br>2090670<br>73.95  
  | 101.4<br>0.0953<br>9<br>20.1<br>1.4<br>1.94<br>1.94<br>1.94<br>1.94<br>1.94<br>1.94<br>1.9   | 103.7<br>0.0952<br>9<br>20.6<br>1.4<br>1.97<br>182<br>0.491<br>1.51<br>0.116<br>3.4<br>6.8<br>3.67<br>0.281<br>3.4<br>6.9<br>6.9<br>1987620<br>70.30  | 103.8<br>0.0053<br>9<br>20<br>1.4<br>1.92<br>1.51<br>0.492<br>1.51<br>0.492<br>1.51<br>0.492<br>0.492<br>0.492<br>0.492<br>0.281<br>3.4<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9  |
| No. A No2<br>CO<br>CO<br>CO<br>Solowie (Solowie)<br>You (Solowie)<br>You (Solowie)<br>Solowie (Solowie)<br>S   | ib/hr<br>B/hrMMBu<br>ppmrd<br>Ib/hr<br>ppmrw<br>Ib/hr<br>phr (# 15% 02<br>Ib/hr<br>Ib/hr<br>Ib/hr<br>Ib/hr<br>Ib/hr<br>Ib/h<br>Ib/h<br>Ib/h<br>Ib/h<br>Ib/h               | 231.7<br>0.0554<br>9<br>3.4.2<br>1.4<br>3.52<br>1.82<br>1.097<br>3.37<br>0.258<br>3.4<br>6.9<br>6.9<br>8.17<br>0.626<br>3.4<br>7.2<br>3.694690<br>13068<br>6510830   | 231.9<br>0.0554<br>9<br>34.4<br>1.4<br>3.52<br>1.098<br>3.37<br>0.258<br>3.4<br>6.9<br>6.9<br>6.9<br>8.18<br>0.626<br>3.4<br>7.2<br>7.2<br>3677090<br>13006<br>6487710  | 218.1<br>0.0954<br>9<br>34.5<br>14<br>3.47<br>182<br>1.033<br>3.18<br>0.243<br>0.243<br>0.243<br>0.243<br>0.243<br>0.243<br>0.243<br>0.589<br>3.4<br>7.2<br>7.2<br>3631610<br>128.45<br>6429890   | 220.6<br>0.0954<br>9<br>35<br>1.4<br>3.5<br>1.82<br>1.045<br>3.21<br>0.246<br>3.4<br>6.9<br>7.78<br>0.596<br>3.4<br>7.2<br>3650390<br>129.12<br>6469400   | 226.9<br>0.0354<br>9<br>35.7<br>1.4<br>3.51<br>1.075<br>3.3<br>0.253<br>3.4<br>6.9<br>6.9<br>6.9<br>8.01<br>0.613<br>3.4<br>7.2<br>3.574250<br>126.42<br>6374250   | 194.6<br>0.0953<br>9<br>31.9<br>1.4<br>3.17<br>182<br>0.921<br>2.83<br>0.217<br>3.4<br>6.9<br>6.9<br>6.9<br>6.87<br>0.526<br>3.4<br>7.1<br>7.1<br>3.1<br>5.82<br>3.16830<br>117.32  
  | 205.5<br>0.0953<br>9<br>3.3<br>1.4<br>3.31<br>1.8<br>0.973<br>2.99<br>0.229<br>3.4<br>6.9<br>6.9<br>7.25<br>0.555<br>0.555<br>3.4<br>7.2<br>7.2<br>5<br>3.4<br>7.2<br>7.2<br>3.4<br>8<br>6.9<br>6.9<br>6.9<br>6.9<br>7.25<br>0.255<br>3.4<br>7.2<br>7.2<br>7.2<br>7.2<br>7.2<br>7.2<br>7.2<br>7.2<br>7.2<br>7.2  | 225<br>0.0953<br>9<br>35.8<br>1.4<br>3.51<br>1.066<br>3.28<br>0.251<br>3.4<br>6.9<br>6.9<br>7.94<br>0.608<br>3.4<br>7.2<br>7.94<br>0.608<br>3.4<br>7.2<br>7.2<br>3572250<br>126.35  | 230.9<br>0.0954<br>9<br>36.1<br>1.4<br>3.52<br>182<br>1.994<br>3.36<br>0.257<br>3.4<br>6.9<br>6.9<br>8.15<br>0.624<br>3.4<br>7.2<br>3.54710<br>124.32<br>2514710   | 233.3<br>0.0954<br>9<br>36.6<br>1.4<br>3.55<br>182<br>1.106<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>6.9<br>8.23<br>0.63<br>3.4<br>7.2<br>7.2<br>7.2<br>3401560<br>120.32<br>6086320  
   | 162.4<br>0.0953<br>9<br>27.8<br>1.4<br>2.76<br>182<br>0.769<br>2.37<br>0.181<br>3.4<br>6.9<br>6.9<br>5.73<br>0.439<br>3.4<br>7.1<br>7.1<br>2833560<br>100.23<br>5028550  | 165.6<br>0.0953<br>9<br>29.1<br>1.4<br>2.88<br>182<br>0.803<br>2.47<br>0.189<br>3.4<br>6.9<br>6.9<br>6.9<br>0.459<br>3.4<br>7.1<br>7.1<br>2896670<br>10256<br>5147890   | 183.1<br>0.0954<br>9<br>31.5<br>1.4<br>3.07<br>182<br>0.868<br>2.67<br>0.204<br>3.4<br>6.9<br>6.46<br>0.495<br>3.4<br>7.1<br>7.1<br>2930220<br>103.64<br>5229990   | 187.7<br>0.0953<br>9<br>32.3<br>1.4<br>3.13<br>182<br>0.890<br>2.73<br>0.209<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>7.1<br>7.1<br>2885270<br>102.05<br>5160740  | 190.7<br>0.0954<br>9<br>32<br>1.4<br>3.09<br>182<br>0.904<br>2.78<br>0.213<br>3.4<br>6.9<br>6.73<br>0.515<br>3.4<br>7.1<br>7.1<br>2817480<br>99.66<br>5042170                         
  | 147.7<br>0.0954<br>9<br>25.4<br>1.4<br>2.52<br>182<br>0.699<br>2.15<br>0.165<br>0.165<br>0.165<br>0.165<br>0.165<br>0.34<br>6.8<br>5.21<br>0.399<br>3.4<br>7<br>7<br>7<br>7<br>2631750<br>93.09<br>4671560  | 154.1<br>0.0953<br>9<br>26.1<br>1.4<br>2.59<br>182<br>0.730<br>2.25<br>0.172<br>3.4<br>6.8<br>5.44<br>0.417<br>3.4<br>7<br>7<br>2690870<br>95.18<br>4778490  | 165.8<br>0.0953<br>9<br>28.4<br>1.4<br>2.77<br>182<br>0.786<br>2.42<br>0.182<br>0.482<br>0.48<br>3.4<br>6.9<br>5.85<br>0.448<br>3.4<br>7.1<br>7.1<br>2710530<br>95.87<br>4839040   | 168.5<br>0.0953<br>9<br>28.6<br>1.4<br>2.77<br>182<br>0.799<br>2.45<br>0.188<br>3.4<br>6.9<br>5.95<br>0.455<br>3.4<br>6.9<br>5.95<br>0.455<br>3.4<br>7.1<br>7.1<br>2652390<br>93.82<br>4745910   |
172.1<br>0.0954<br>9<br>28.6<br>1.4<br>2.76<br>182<br>0.816<br>0.816<br>0.816<br>0.9<br>6.07<br>0.465<br>3.4<br>6.9<br>6.07<br>0.465<br>3.4<br>7.1<br>7.1<br>2613050<br>92.43   | 125.2<br>0.0952<br>9<br>23.6<br>1.4<br>2.32<br>182<br>0.593<br>1.83<br>0.14<br>3.4<br>6.8<br>4.43<br>0.339<br>3.4<br>7<br>7<br>7<br>2422830<br>85.73<br>4305780  | 128.4<br>0.0953<br>9<br>23.6<br>1.87<br>0.143<br>3.4<br>6.8<br>6.8<br>6.8<br>4.53<br>0.347<br>7<br>7<br>2416380<br><b>B</b> 547<br>4294270  
                    | 135.1<br>0.0953<br>9<br>23.8<br>1.4<br>2.31<br>182<br>0.640<br>1.97<br>0.151<br>3.4<br>6.8<br>4.77<br>0.365<br>3.4<br>7<br>7<br>7<br>7<br>2364210<br>83.62<br>4223970   | 138.8<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.658<br>2.02<br>0.155<br>3.4<br>6.8<br>6.8<br>6.8<br>4.9<br>0.375<br>3.4<br>7<br>7<br>7<br>2340570<br>82.79<br>4191070   | 141.6<br>0.093<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.671<br>2.06<br>0.158<br>3.4<br>6.8<br>6.8<br>5<br>0.383<br>3.4<br>7<br>7<br>7<br>2299240<br>8.133<br>4.1932   | 101.6<br>0.0953<br>9<br>20.6<br>1.4<br>2.02<br>182<br>0.481<br>1.48<br>0.481<br>1.48<br>0.113<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>3.59<br>0.275<br>3.4<br>6.9<br>6.9<br>2.104320<br>74.43<br>3.740760  | 102.4<br>0.0953<br>9<br>20.6<br>1.4<br>2.01<br>182<br>0.484<br>1.49<br>0.114<br>3.4<br>6.8<br>3.61<br>0.277<br>3.4<br>6.9<br>2090670<br>73.95<br>3718350   | 101.4<br>0.0953<br>9<br>20.1<br>1.4<br>1.94<br>1.94<br>0.480<br>1.48<br>0.480<br>1.48<br>0.480<br>1.48<br>0.480<br>0.480<br>0.480<br>0.480<br>0.480<br>0.48<br>0.48   
  | 103.7<br>0.0952<br>9<br>20.6<br>1.4<br>1.97<br>182<br>0.491<br>1.51<br>0.116<br>3.4<br>6.8<br>6.8<br>3.67<br>0.281<br>3.4<br>6.9<br>6.9<br>1987620<br><b>70.30</b><br><b>3.563</b> 20   | 103.8<br>0.0953<br>9<br>20<br>1.4<br>1.92<br>182<br>0.492<br>1.51<br>0.116<br>3.4<br>6.8<br>6.8<br>3.67<br>0.281<br>3.4<br>6.9<br>6.9<br>6.9<br>1908780<br><b>67.52</b>   |
| No. A No2<br>CO<br>CO<br>CO<br>VOC<br>VOC<br>VOC<br>SOC mass flow rate (as SO2)<br>Sufur Miss at N2DO4<br>Filterable Particulates<br>Total Particulates<br>Total Particulates<br>PMI0/2.3<br>SOC mass flow rate (as SO2)<br>Sufur Miss at N2DO4<br>Filterable Particulates<br>Total Particulates<br>PMI0/2.5<br>Soc Exception (cluster Society of the SO2)<br>Exact Particulates<br>PMI0/2.5<br>Stack Also Stack Velocity, Inset<br>Stack Also Stack Velocity, Inset  | ib/hr<br>bb/MMUb<br>ppmvd<br>ib/hr<br>ppmvd<br>jb/hr<br>ppmvd<br>ib/hr<br>bb/h<br>ib/hr<br>ib/hr<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h          | 2317<br>00954<br>9<br>34.2<br>1.4<br>3.52<br>1.82<br>1.097<br>3.37<br>0.258<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>8.17<br>0.626<br>3.4<br>7.2<br>7.2<br>3694690<br><b>130.68</b><br>6510830<br>850            | 231.9<br>0.0554<br>9<br>34.4<br>1.4<br>3.52<br>1.098<br>0.258<br>3.4<br>6.9<br>8.18<br>0.626<br>3.4<br>7.2<br>7.2<br>3677090<br>130.05<br>6487710<br>8850   | 218.1<br>0.0954<br>9<br>34.5<br>14<br>14<br>3.47<br>182<br>1033<br>3.18<br>0.243<br>3.4<br>6.9<br>7.69<br>0.589<br>0.589<br>3.4<br>7.2<br>7.2<br>3631610<br>128.45<br>6428800<br>850  | 220.6<br>0.0954<br>9<br>35<br>14<br>1.4<br>3.5<br>1.821<br>0.246<br>3.4<br>6.9<br>7.78<br>0.596<br>3.4<br>7.2<br>7.2<br>3.5<br>3.5<br>1.5<br>4.5<br>9<br>6.9<br>7.78<br>0.546<br>3.4<br>7.2<br>7.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>3.5<br>1.2<br>1.2<br>1.2<br>1.2<br>1.2<br>1.2<br>1.2<br>1.2 | 226.9<br>0.0354<br>9<br>3.5.7<br>1.4<br>1.4<br>1.075<br>1.075<br>3.3<br>0.253<br>3.4<br>6.9<br>6.9<br>8.01<br>0.613<br>3.4<br>7.2<br>7.2<br>3.574250<br>126.42<br>6374300<br>850  
  | 194.6<br>0.0553<br>9<br>31.9<br>1.4<br>3.19<br>1.4<br>3.17<br>182<br>0.921<br>2.83<br>0.921<br>2.83<br>0.921<br>2.83<br>0.921<br>6.9<br>6.9<br>6.9<br>6.9<br>6.87<br>0.526<br>3.4<br>7.1<br>7.1<br>3316530<br>117.32<br>5584760<br>8550  | 205.5<br>0.0953<br>9<br>3.3<br>3.3<br>12<br>0.973<br>0.973<br>0.973<br>0.229<br>3.4<br>6.9<br>7.25<br>0.555<br>3.4<br>7.2<br>7.2<br>3.448600<br>121.98<br>6.2340<br>850  | 225<br>0.0953<br>9<br>35.8<br>1.4<br>3.51<br>182<br>1.066<br>0.251<br>3.4<br>6.9<br>6.9<br>7.94<br>0.608<br>3.4<br>7.2<br>7.2<br>3572250<br>126.35<br>6375030<br>850  | 230.9<br>0.0954<br>9<br>36.1<br>1.4<br>3.52<br>1.094<br>1.094<br>3.36<br>0.257<br>3.4<br>6.9<br>8.15<br>0.624<br>3.4<br>7.2<br>7.2<br>3514710<br>124.32<br>6286140<br>850  
   | 233.3<br>0.0954<br>9<br>36.6<br>1.4<br>3.55<br>182<br>1.106<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>6.9<br>6.9<br>8.23<br>0.63<br>3.4<br>7.2<br>7.2<br>3401560<br>120.32<br>6086202<br>850   | 162.4<br>0.0953<br>9<br>27.8<br>1.4<br>2.76<br>182<br>0.769<br>2.37<br>0.181<br>3.4<br>6.9<br>6.9<br>5.73<br>0.439<br>6.9<br>5.73<br>0.439<br>6.9<br>5.73<br>0.439<br>6.9<br>5.73<br>0.439<br>5.73<br>0.430<br>5.73<br>0.450<br>5.73<br>0.450<br>5.73<br>0.450<br>5.73<br>0.450<br>5.74<br>5.75<br>5.75<br>5.75<br>5.75<br>5.75<br>5.75<br>5.75  | 169.6<br>0.0953<br>9<br>29.1<br>1.4<br>2.88<br>182<br>0.803<br>2.47<br>0.189<br>3.4<br>6.9<br>6.9<br>6.9<br>9<br>0.459<br>3.4<br>7.1<br>7.1<br>2899670<br>102.56<br>5147800<br>850  | 183.1<br>0.0954<br>9<br>31.5<br>1.4<br>3.07<br>182<br>0.868<br>2.67<br>0.204<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9<br>6.46<br>0.495<br>3.4<br>7.1<br>7.1<br>2930220<br>103.64<br>522990<br>850   
  | 187.7<br>0.0953<br>9<br>32.3<br>1.4<br>3.13<br>182<br>0.890<br>2.73<br>0.209<br>3.4<br>6.9<br>6.9<br>6.63<br>0.507<br>3.4<br>7.1<br>7.1<br>2885270<br>102.05<br>5160740<br>850  | 190.7<br>0.0954<br>9<br>32<br>1.4<br>3.09<br>182<br>0.904<br>2.78<br>0.213<br>3.4<br>6.9<br>6.9<br>6.9<br>6.73<br>0.515<br>3.4<br>7.1<br>7.1<br>2817480<br>99.66<br>5042170<br>850   | 147.7<br>0.0954<br>9<br>25.4<br>1.4<br>2.52<br>182<br>0.6699<br>2.15<br>0.165<br>3.4<br>6.8<br>6.8<br>5.21<br>0.394<br>7<br>7<br>7<br>2631750<br>93.09<br>4671560<br>850  | 154.1<br>0.0953<br>9<br>26.1<br>1.4<br>2.59<br>182<br>0.730<br>2.25<br>0.172<br>3.4<br>6.8<br>5.44<br>0.417<br>7<br>7<br>2690870<br>95.18<br>4778490<br>850  | 165.8<br>0.0953<br>9<br>28.4<br>1.4<br>2.77<br>182<br>0.786<br>2.42<br>0.185<br>3.4<br>6.9<br>6.9<br>5.85<br>0.448<br>3.4<br>7.1<br>7.1<br>7.1<br>2710530<br>95.87<br>4839040<br>850   | 168.5<br>0.0953<br>9<br>28.6<br>1.4<br>2.77<br>182<br>0.799<br>2.45<br>0.188<br>3.4<br>6.9<br>5.95<br>0.455<br>3.4<br>7.1<br>7.1<br>2652390<br>9.82<br>4745910<br>850   
  | 172.1<br>0.0954<br>9<br>28.6<br>1.4<br>2.76<br>182<br>0.816<br>2.51<br>0.192<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.07<br>0.465<br>3.4<br>7.1<br>7.1<br>7.1<br>2613050<br>92.43<br>4677505  | 125.2<br>9<br>9<br>23.6<br>14.2<br>182<br>0.593<br>1.83<br>0.14<br>3.4<br>6.8<br>6.8<br>4.43<br>0.339<br>3.4<br>7<br>7<br>2423830<br>85.73<br>430570<br>8550   | 1284<br>0.0553<br>9<br>22.6<br>1.4<br>2.32<br>182<br>0.608<br>1.87<br>0.143<br>3.4<br>6.8<br>6.8<br>4.53<br>0.347<br>7<br>7<br>2416380<br>850<br>850<br>850<br>850  
  | 135.1<br>0.0953<br>9<br>23.8<br>1.4<br>2.31<br>182<br>0.640<br>1.97<br>0.151<br>3.4<br>6.8<br>6.8<br>4.77<br>0.365<br>3.4<br>7<br>7<br>2364210<br>830<br>820  | 138.8<br>0.0553<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.658<br>2.02<br>0.155<br>3.4<br>6.8<br>6.8<br>4.9<br>0.375<br>3.4<br>7<br>7<br>7<br>2340570<br>82.79<br>4191070  | 141.6<br>0.0953<br>9<br>2.3.9<br>1.4<br>2.31<br>182<br>0.671<br>2.06<br>0.158<br>3.4<br>6.8<br>5<br>0.383<br>3.4<br>7<br>7<br>2299240<br>81.33<br>4119220<br>850   | 101.6<br>0.0953<br>9<br>20.6<br>1.4<br>2.02<br>182<br>0.48<br>0.113<br>3.4<br>6.8<br>6.8<br>3.59<br>0.275<br>3.4<br>6.9<br>6.9<br>2104320<br>74.43<br>3740760  | 102.4<br>0.0953<br>9<br>20.6<br>1.4<br>2.01<br>182<br>0.484<br>1.49<br>0.114<br>3.4<br>6.8<br>3.61<br>0.277<br>3.4<br>6.9<br>6.9<br>2090670<br>73.95<br>3718350<br>850   
   | 101.4<br>0.0953<br>9<br>20.1<br>1.4<br>1.94<br>1.42<br>0.480<br>1.48<br>0.113<br>3.4<br>6.8<br>6.8<br>6.8<br>0.274<br>3.4<br>6.9<br>6.9<br>19802200<br>70.04<br>2541880  | 103.7<br>0.0952<br>9<br>20.6<br>1.4<br>1.97<br>1.57<br>0.491<br>1.51<br>0.116<br>3.4<br>6.8<br>3.67<br>0.281<br>3.4<br>6.9<br>6.9<br>1987620<br>70.30<br>3563820<br>880   | 103.8<br>0.0051<br>9<br>20<br>1.4<br>1.92<br>0.492<br>1.51<br>0.116<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.9<br>6.9<br>1908780<br>6.9<br>1908780<br>6.7<br>52<br>342450  |
| No. A No2<br>CO<br>CO<br>CO<br>CO<br>Solo Testing (SSC)<br>Solo mask for the (is SSC)<br>Solo mask for the (is SSC)<br>Solo mask for the (is SSC)<br>Solo Testing (SSC)<br>Solo   | ib/hr<br>B/hrMMBu<br>ppmrd<br>Ib/hr<br>ppmrw<br>Ib/hr<br>phr (# 15% 02<br>Ib/hr<br>Ib/hr<br>Ib/hr<br>Ib/hr<br>Ib/hr<br>Ib/h<br>Ib/h<br>Ib/h<br>Ib/h<br>Ib/h               | 2317<br>0 0954<br>9<br>34.2<br>1.4<br>3.52<br>1.82<br>1.997<br>3.37<br>0.526<br>3.4<br>6.9<br>8.17<br>0.626<br>3.4<br>7.2<br>7.2<br>7.2<br>3.694690<br>10068<br>6510830<br>850<br>825.6                              | 231.9<br>0.0554<br>9<br>34.4<br>1.4<br>3.52<br>1.098<br>3.37<br>0.258<br>3.4<br>6.9<br>6.9<br>8.18<br>0.626<br>9<br>8.18<br>0.626<br>3.4<br>7.2<br>7.2<br>3677090<br>130.06<br>6487710<br>850.2<br>52.0   | 218.1<br>0.0954<br>9<br>34.5<br>1.4<br>3.47<br>182<br>1.033<br>3.18<br>0.243<br>3.18<br>0.243<br>3.18<br>0.243<br>3.18<br>0.243<br>3.18<br>0.243<br>3.18<br>0.243<br>3.18<br>0.243<br>3.4<br>7.2<br>7.2<br>3631610<br>128.45<br>6429890<br>850<br>28.29 | 220.6<br>0.0954<br>9<br>35<br>1.4<br>3.5<br>182<br>1.045<br>3.21<br>0.246<br>3.21<br>0.246<br>3.21<br>0.246<br>3.4<br>7.2<br>7.2<br>3650390<br>129.12<br>6469400<br>850<br>28.32  | 226.9<br>0.0954<br>9<br>35.7<br>1.4<br>3.51<br>182<br>1.075<br>3.3<br>0.253<br>3.4<br>6.9<br>6.9<br>8.01<br>0.613<br>3.4<br>7.2<br>3574250<br>126.42<br>6374300<br>850<br>28.50  | 194,6<br>0.0953<br>9<br>31,9<br>1,4<br>3,17<br>182<br>0.921<br>2,83<br>0.217<br>3,4<br>6,9<br>6,9<br>6,87<br>0.526<br>3,4<br>7,1<br>3316530<br>117,32<br>5884760<br>850<br>28,35   
   | 205.5<br>0.0953<br>9<br>33.3<br>14<br>3.31<br>182<br>0.973<br>2.99<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.2200<br>0.2200<br>0.2200<br>0.2200000000  | 225<br>0.0953<br>9<br>35.8<br>1.4<br>3.51<br>1.066<br>3.28<br>0.251<br>3.4<br>4.6<br>9<br>6.9<br>6.9<br>6.9<br>7.94<br>0.608<br>3.4<br>7.2<br>3572250<br>0<br>126.35<br>6375030<br>850<br>28.52   | 230.9<br>0.0954<br>9<br>36.1<br>1.4<br>3.52<br>1.094<br>3.36<br>0.257<br>3.36<br>0.257<br>3.36<br>0.257<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9<br>8.15<br>0.624<br>3.4<br>7.2<br>2514710<br>124.32<br>6286140<br>850<br>28.58  |
233.3<br>0.0954<br>9<br>36.6<br>1.4<br>3.55<br>182<br>1.106<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.63<br>3.4<br>0.22<br>0.63<br>3.4<br>0.25<br>3.4<br>0.63<br>3.4<br>0.25<br>3.4<br>0.63<br>3.4<br>0.25<br>3.4<br>0.63<br>3.4<br>0.25<br>0.63<br>3.4<br>0.25<br>0.63<br>3.4<br>0.25<br>0.63<br>3.4<br>0.25<br>0.63<br>3.4<br>0.25<br>0.63<br>3.4<br>0.25<br>0.53<br>0.53<br>0.53<br>0.53<br>0.53<br>0.53<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.5 | 162.4<br>0.0953<br>9<br>27.8<br>14.2,76<br>182<br>0.769<br>2.37<br>0.181<br>3.4<br>6.9<br>6.9<br>5.73<br>0.439<br>3.4<br>7.1<br>2833560<br>100.23<br>5028550<br>850<br>28.35   | 169.6<br>0.0953<br>9<br>29.1<br>1.4<br>2.88<br>182<br>0.803<br>2.47<br>0.189<br>3.4<br>6.9<br>6.9<br>5.99<br>0.459<br>3.4<br>7.1<br>2899670<br>102.56<br>5147890<br>850<br>28.37  | 183.1<br>0.0954<br>9<br>31.5<br>1.4<br>3.07<br>182<br>0.868<br>2.67<br>0.204<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9  |
187.7<br>0.0953<br>9<br>32.3<br>1.4<br>3.13<br>182<br>0.890<br>2.73<br>0.209<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>0.507<br>3.4<br>7.1<br>2885270<br>5160740<br>850<br>28.58                                   | 190.7<br>0.0954<br>9<br>32<br>14<br>3.09<br>182<br>0.904<br>2.78<br>0.213<br>3.4<br>6.9<br>6.9<br>6.73<br>0.515<br>3.4<br>7.1<br>7.1<br>7.1<br>2817480<br>99.66<br>5042170<br>8500<br>2.860  | 147.7<br>0.0954<br>9<br>25.4<br>1.4<br>2.52<br>182<br>0.699<br>2.15<br>0.165<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>5.21<br>0.399<br>3.4<br>7<br>7<br>2631750<br>93.09<br>4671560<br>850<br>28.37   | 154.1<br>0.0953<br>9<br>26.1<br>1.4<br>2.59<br>182<br>0.730<br>2.25<br>0.730<br>2.25<br>0.172<br>3.4<br>6.8<br>6.8<br>5.44<br>0.417<br>3.4<br>7<br>7<br>2690870<br>95.18<br>4778490<br>850<br>82.838   | 165.8<br>0.0053<br>9<br>28.4<br>1.4<br>2.77<br>182<br>0.786<br>2.42<br>0.185<br>3.4<br>6.9<br>6.9<br>5.85<br>0.448<br>3.4<br>7.1<br>7.1<br>2710530<br>95.87<br>4839040<br>850<br>28.53   | 168.5<br>0.0953<br>9<br>28.6<br>1.4<br>2.77<br>182<br>0.799<br>2.45<br>0.188<br>3.4<br>4.9<br>6.9<br>6.9<br>5.95<br>0.455<br>3.4<br>7.1<br>7.1<br>2652390<br>93.82<br>4745910<br>850<br>28.59   
  | 172.1<br>0.0954<br>9<br>28.6<br>1.4<br>2.76<br>182<br>0.816<br>2.51<br>0.192<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9<br>6.07<br>0.465<br>3.4<br>7.1<br>2613050<br>92.41<br>4677850<br>850<br>28.61   | 125.2<br>9<br>9<br>23.6<br>1.4<br>2.32<br>182<br>0.593<br>1.83<br>0.14<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>4.43<br>0.339<br>3.4<br>7<br>7<br>2423830<br>85.73<br>4305780<br>85.03   | 128.4<br>0.0953<br>9<br>23.6<br>1.4<br>2.32<br>182<br>0.608<br>1.87<br>0.143<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>0.347<br>3.4<br>7<br>7<br>2416380<br>85.47<br>4294270<br>850  
  | 135.1<br>0.0953<br>9<br>23.8<br>1.2<br>31<br>182<br>0.640<br>1.97<br>0.151<br>3.4<br>6.8<br>6.8<br>6.8<br>4.77<br>0.365<br>3.4<br>7<br>7<br>2364210<br>83.62<br>4223970<br>83.55  | 138.8<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.658<br>2.02<br>0.155<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>0.375<br>3.4<br>7<br>7<br>2340570<br>82.79<br>4191070<br>850<br>28.62  | 141.6<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.671<br>2.06<br>0.158<br>3.4<br>6.8<br>6.8<br>6.8<br>5<br>0.383<br>3.4<br>7<br>7<br>2299240<br>81.33<br>4119220<br>85.0<br>28.63  | 101.6<br>0.0953<br>9<br>20.6<br>1.4<br>2.02<br>182<br>0.481<br>1.48<br>0.113<br>3.4<br>6.8<br>6.8<br>6.8<br>3.59<br>0.275<br>3.4<br>6.9<br>2104320<br>7.4.43<br>3740760<br>850<br>28.41  | 102.4<br>0.0953<br>9<br>20.6<br>1.4<br>2.01<br>182<br>0.484<br>1.49<br>0.114<br>3.4<br>6.8<br>6.8<br>3.61<br>0.277<br>3.4<br>6.9<br>2090670<br><b>73.95</b><br>3718350<br>850<br>28.42   | 101.4<br>0.0953<br>9<br>20.1<br>1.4<br>1.94<br>194<br>194<br>194<br>0.480<br>1.48<br>0.480<br>0.480<br>0.480<br>0.480<br>0.480<br>0.48<br>0.58<br>0.274<br>3.4<br>6.9<br>1980290<br>70.04<br>3541890<br>850<br>28.58  
  | 103.7<br>0.0952<br>9<br>20.6<br>1.4<br>1.97<br>197<br>197<br>10.16<br>3.4<br>6.8<br>6.8<br>3.67<br>0.281<br>3.4<br>6.9<br>1987620<br>70.30<br>3563820<br>856  | 103.8<br>0.0253<br>9<br>20<br>1.4<br>1.92<br>1.92<br>1.92<br>1.92<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.49<br>0.49<br>0.49<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.4 |
| No. As No2<br>CO<br>CO<br>CO<br>CO<br>VOC<br>VOC<br>VOC<br>Solo mask for vate (as SO2)<br>Sufur Mica at V2CO4<br>Fibrable Particulates<br>Total Particulates<br>PM10/2.5<br>SOC mask for vate (as SO2)<br>Sufur Mica at V2CO4<br>Fibrable Particulates<br>PM10/2.5<br>Stadu Mica at V2CO4<br>Fibrable Particulates<br>PM10/2.5<br>Stadu Mica at V2CO4<br>Fibrable Particulates<br>PM10/2.5<br>Stadu Mica at V2CO4<br>Fibrable Particulates<br>PM10/2.5<br>Stadu Mica Society Insect<br>Stadu Mica Society  | ib/hr<br>bb/MMUb<br>ppmvd<br>ib/hr<br>ppmvd<br>jb/hr<br>ppmvd<br>ib/hr<br>bb/h<br>ib/hr<br>ib/hr<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h          | 2317<br>00954<br>9<br>34.2<br>1.4<br>3.52<br>1.997<br>3.37<br>0.258<br>3.4<br>6.9<br>8.17<br>0.626<br>3.4<br>7.2<br>7.2<br>3694690<br>130.68<br>6510830<br>850<br>28.16<br>24.5                                      | 231.9<br>0.0554<br>9<br>34.4<br>1.4<br>3.52<br>1.098<br>3.37<br>0.258<br>3.4<br>6.9<br>6.9<br>8.18<br>0.626<br>3.4<br>7.2<br>7.2<br>3677090<br>130.06<br>6487710<br>850<br>28.20<br>24.5  | 218.1<br>0.0954<br>9<br>34.5<br>1.4<br>347<br>182<br>1.033<br>3.18<br>0.243<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9<br>7.69<br>0.589<br>3.4<br>7.2<br>7.2<br>3631610<br>128.45<br>642980<br>850<br>850<br>28.29<br>24.5                                      | 220.6<br>0.0954<br>9<br>35<br>1.4<br>3.5<br>182<br>1.045<br>3.21<br>0.246<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9<br>7.78<br>0.596<br>3.4<br>7.2<br>7.2<br>3650390<br>129.12<br>6469400<br>850<br>28.32<br>24.5  | 226.9<br>0.0954<br>9<br>35.7<br>1.4<br>3.51<br>1822<br>1.075<br>3.3<br>0.253<br>3.4<br>6.9<br>6.9<br>8.01<br>0.613<br>3.4<br>7.2<br>7.2<br>3574250<br>126.42<br>6374050<br>850<br>28.50<br>24.50   | 194,6<br>0.0953<br>9<br>31,9<br>1,4<br>3,17<br>182<br>0.921<br>2,83<br>0,217<br>3,4<br>6,9<br>6,9<br>6,87<br>0,526<br>3,4<br>7,1<br>7,1<br>3316830<br>117,32<br>588470<br>117,32<br>588450<br>8850<br>28,85   
  | 205.5<br>0.0953<br>9<br>3.3<br>1.4<br>3.31<br>2.99<br>0.229<br>3.4<br>6.9<br>7.25<br>0.555<br>3.4<br>7.2<br>7.2<br>3448600<br>121.98<br>612130<br>850<br>28.30<br>28.45  | 225<br>0.0953<br>9<br>35.8<br>1.4<br>3.51<br>182<br>1.066<br>3.28<br>0.251<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9<br>7.94<br>0.608<br>3.4<br>7.2<br>7.2<br>3572250<br>126.35<br>6375030<br>850<br>28.52<br>24.5   | 230.9<br>0.0954<br>9<br>36.1<br>1.4<br>3.52<br>1.094<br>3.36<br>0.257<br>3.4<br>6.9<br>6.9<br>8.15<br>0.624<br>3.4<br>7.2<br>7.2<br>2514710<br>124.32<br>628610<br>850<br>28.58<br>24.5   
  | 233.3<br>0.0954<br>9<br>36.6<br>1.4<br>3.55<br>182<br>1.106<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>6.9<br>6.9<br>8.23<br>0.63<br>3.4<br>7.2<br>7.2<br>3.401560<br>120.32<br>6086320<br>850<br>28.59<br>24.5   | 162.4<br>0.0953<br>9<br>27.8<br>1.4<br>2.76<br>1.62<br>0.769<br>2.37<br>0.181<br>3.4<br>6.9<br>5.73<br>0.439<br>3.4<br>7.1<br>7.1<br>2833560<br>100.23<br>5028550<br>850<br>2.45   | 165.6<br>0.0953<br>9<br>29.1<br>1.4<br>2.88<br>182<br>0.803<br>2.47<br>0.189<br>3.4<br>6.9<br>5.99<br>0.459<br>3.4<br>6.9<br>5.99<br>0.459<br>3.4<br>7.1<br>7.1<br>2899670<br>102.56<br>514780<br>850<br>28.37<br>24.5  | 183.1<br>9<br>9<br>31.5<br>1.4<br>3.07<br>182<br>0.868<br>2.67<br>0.204<br>3.4<br>6.9<br>6.9<br>6.9<br>6.46<br>0.495<br>3.4<br>7.1<br>7.1<br>2930220<br>103.64<br>522990<br>28.52<br>24.5  
   | 187.7<br>0.0953<br>9<br>32.3<br>1.4<br>3.13<br>1.8<br>0.890<br>2.73<br>0.209<br>3.4<br>6.9<br>6.63<br>0.507<br>3.4<br>6.9<br>6.63<br>0.507<br>3.4<br>7.1<br>7.1<br>2885270<br>102.06<br>516070<br>850<br>24.5                       | 190.7<br>0.0954<br>9<br>32<br>1.4<br>1.4<br>3.09<br>1.82<br>0.904<br>2.78<br>0.213<br>3.4<br>6.9<br>6.9<br>6.73<br>0.515<br>3.4<br>7.1<br>7.1<br>2.817480<br>9.966<br>5.042170<br>5.042170<br>2.850<br>2.850<br>2.45   | 147.7<br>0.0954<br>9<br>925.4<br>1.4<br>2.52<br>0.699<br>2.15<br>0.165<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>7<br>7<br>7<br>2031750<br>93.09<br>4671560<br>880<br>28.37<br>24.5   | 154.1<br>0.0953<br>9<br>26.1<br>1.4<br>2.59<br>182<br>0.730<br>2.25<br>0.172<br>3.4<br>6.8<br>6.8<br>5.44<br>0.417<br>7<br>7<br>2690870<br>95.18<br>4778490<br>850<br>28.38<br>224.5   | 165.8<br>0.0953<br>9<br>28.4<br>1.4<br>2.77<br>0.786<br>2.42<br>0.185<br>3.4<br>6.9<br>6.9<br>5.85<br>0.448<br>3.4<br>7.1<br>7.1<br>2710530<br>95.87<br>4839040<br>880<br>28.53<br>24.5  | 168.5<br>0.0953<br>9<br>28.6<br>1.4<br>2.77<br>0.182<br>0.799<br>2.45<br>0.188<br>3.4<br>6.9<br>5.95<br>0.455<br>3.4<br>7.1<br>7.1<br>7.1<br>2652390<br>9.82<br>4745910<br>880<br>28.59<br>24.5  
   | 172.1<br>0.0954<br>9<br>28.6<br>1.4<br>2.76<br>0.816<br>2.51<br>0.192<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.07<br>0.465<br>3.4<br>7.1<br>7.1<br>7.1<br>2613050<br>9.241<br>4677850<br>850<br>28.61<br>24.5   | 125.2<br>0.0952<br>9<br>23.6<br>1.4<br>2.32<br>0.593<br>1.83<br>0.14<br>3.4<br>6.8<br>6.8<br>4.43<br>0.339<br>3.4<br>7<br>7<br>2423830<br>85.73<br>430570<br>85.73<br>430570<br>85.0<br>85.0<br>28.39<br>24.5<br>1.5<br>1.5<br>1.5<br>1.5<br>1.5<br>1.5<br>1.5<br>1  | 128.4<br>0.0953<br>9<br>23.6<br>1.4<br>2.32<br>0.608<br>1.87<br>0.143<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>7<br>7<br>7<br>2416380<br>850<br>850<br>28.40<br>28.40<br>24.5  
   | 135.1<br>0.0953<br>9<br>23.8<br>1.3<br>2.3<br>182<br>0.640<br>1.97<br>0.151<br>3.4<br>6.8<br>6.8<br>4.77<br>0.365<br>3.4<br>7<br>7<br>2364210<br><b>8362</b><br>4223970<br>850<br>850<br>28.55<br>24.5  | 138.8<br>0.0953<br>9<br>22.9<br>1.4<br>2.31<br>152<br>0.658<br>2.02<br>0.155<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>7<br>7<br>7<br>2340570<br>82.79<br>4191007<br>850<br>28.62<br>24.5  | 141.6<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>132<br>0.671<br>2.06<br>0.158<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8  | 101.6<br>0.0953<br>9<br>20.6<br>1.4<br>2.02<br>182<br>0.481<br>1.48<br>0.113<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.9<br>9<br>2104320<br>74.43<br>3700708<br>850<br>28.41<br>24.5  | 102.4<br>0.0953<br>9<br>20.6<br>1.4<br>2.01<br>182<br>0.484<br>1.49<br>0.114<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.9<br>9<br>5.9<br>2090670<br>73.95<br>371850<br>850<br>28.42<br>24.5  | 101.4<br>0.0853<br>9<br>20.1<br>1.4<br>1.94<br>1.48<br>0.480<br>1.48<br>0.480<br>1.48<br>0.480<br>1.48<br>0.480<br>1.48<br>0.480<br>1.48<br>0.58<br>0.274<br>3.4<br>6.9<br>6.9<br>1980290<br>70.04<br>850<br>28.58<br>24.5   
   | 103.7<br>0.0852<br>9<br>20.6<br>1.4<br>1.97<br>1.97<br>1.97<br>1.92<br>0.491<br>1.51<br>0.116<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>6.9<br>6.9<br>1987620<br>70.30<br>3563820<br>850<br>24.5  | 103.8<br>0.0851<br>9<br>20<br>1.4<br>1.92<br>1.51<br>1.82<br>0.492<br>1.51<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.281<br>0.281<br>0.281<br>1.90<br>8.9<br>6.9<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1.90<br>1   |
| No. A No2<br>CO<br>CO<br>CO<br>CO<br>Solo Testing (SSC)<br>Solo mask for the (is SSC)<br>Solo mask for the (is SSC)<br>Solo mask for the (is SSC)<br>Solo Testing (SSC)<br>Solo   | ib/hr<br>bb/MMUb<br>ppmvd<br>ib/hr<br>ppmvd<br>jb/hr<br>ppmvd<br>ib/hr<br>bb/h<br>ib/hr<br>ib/hr<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h          | 2317<br>0 0954<br>9<br>34.2<br>1.4<br>3.52<br>1.82<br>1.997<br>3.37<br>0.526<br>3.4<br>6.9<br>8.17<br>0.626<br>3.4<br>7.2<br>7.2<br>7.2<br>3.694690<br>10068<br>6510830<br>850<br>825.6                              | 231.9<br>0.0554<br>9<br>34.4<br>1.4<br>3.52<br>1.098<br>3.37<br>0.258<br>3.4<br>6.9<br>6.9<br>8.18<br>0.626<br>9<br>8.18<br>0.626<br>3.4<br>7.2<br>7.2<br>3677090<br>130.06<br>6487710<br>850.2<br>52.0   | 218.1<br>0.0954<br>9<br>34.5<br>1.4<br>3.47<br>182<br>1.033<br>3.18<br>0.243<br>3.18<br>0.243<br>3.18<br>0.243<br>3.18<br>0.243<br>3.18<br>0.243<br>3.18<br>0.243<br>3.18<br>0.243<br>3.4<br>7.2<br>7.2<br>3631610<br>122.45<br>6429890<br>850<br>28.29 | 220.6<br>0.0954<br>9<br>35<br>1.4<br>3.5<br>182<br>1.045<br>3.21<br>0.246<br>3.21<br>0.246<br>3.21<br>0.246<br>3.4<br>7.2<br>7.2<br>3650390<br>129.12<br>6469400<br>850<br>28.32  | 226.9<br>0.0954<br>9<br>35.7<br>1.4<br>3.51<br>182<br>1.075<br>3.3<br>0.253<br>3.4<br>6.9<br>6.9<br>8.01<br>0.613<br>3.4<br>7.2<br>3574250<br>126.42<br>6374300<br>850<br>28.50  | 194,6<br>0.0953<br>9<br>31,9<br>1,4<br>3,17<br>182<br>0.921<br>2,83<br>0.217<br>3,4<br>6,9<br>6,9<br>6,87<br>0.526<br>3,4<br>7,1<br>3316530<br>117,32<br>5884760<br>850<br>28,35   
   | 205.5<br>0.0953<br>9<br>33.3<br>14<br>3.31<br>182<br>0.973<br>2.99<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.220<br>0.2200<br>0.2200<br>0.2200<br>0.2200000000  | 225<br>0.0953<br>9<br>35.8<br>1.4<br>3.51<br>1.066<br>3.28<br>0.251<br>3.4<br>4.6<br>9<br>6.9<br>6.9<br>6.9<br>7.94<br>0.608<br>3.4<br>7.2<br>3572250<br>0<br>126.35<br>6375030<br>850<br>28.52   | 230.9<br>0.0954<br>9<br>36.1<br>1.4<br>3.52<br>1.094<br>3.36<br>0.257<br>3.36<br>0.257<br>3.36<br>0.257<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9<br>8.15<br>0.624<br>3.4<br>7.2<br>2514710<br>124.32<br>6286140<br>850<br>28.58  |
233.3<br>0.0954<br>9<br>36.6<br>1.4<br>3.55<br>182<br>1.106<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>0.63<br>3.4<br>0.22<br>0.63<br>3.4<br>0.25<br>3.4<br>0.63<br>3.4<br>0.25<br>3.4<br>0.63<br>3.4<br>0.25<br>3.4<br>0.63<br>3.4<br>0.25<br>0.63<br>3.4<br>0.25<br>0.63<br>3.4<br>0.25<br>0.63<br>3.4<br>0.25<br>0.63<br>3.4<br>0.25<br>0.63<br>3.4<br>0.25<br>0.53<br>0.53<br>0.53<br>0.53<br>0.53<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.5 | 162.4<br>0.0953<br>9<br>27.8<br>14.2,76<br>182<br>0.769<br>2.37<br>0.181<br>3.4<br>6.9<br>6.9<br>5.73<br>0.439<br>3.4<br>7.1<br>2833560<br>100.23<br>5028550<br>850<br>28.35   | 169.6<br>0.0953<br>9<br>29.1<br>1.4<br>2.88<br>182<br>0.803<br>2.47<br>0.189<br>3.4<br>6.9<br>6.9<br>5.99<br>0.459<br>3.4<br>7.1<br>2899670<br>102.56<br>5147890<br>850<br>28.37  | 183.1<br>0.0954<br>9<br>31.5<br>1.4<br>3.07<br>182<br>0.868<br>2.67<br>0.204<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9  |
187.7<br>0.0953<br>9<br>32.3<br>1.4<br>3.13<br>182<br>0.890<br>2.73<br>0.209<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>0.507<br>3.4<br>7.1<br>2885270<br>5160740<br>850<br>28.58                                   | 190.7<br>0.0954<br>9<br>32<br>1.4<br>3.09<br>182<br>0.904<br>2.78<br>0.213<br>3.4<br>6.9<br>6.9<br>6.73<br>0.515<br>3.4<br>7.1<br>7.1<br>7.1<br>2817480<br>99.66<br>5042170<br>8500<br>2.860   | 147.7<br>0.0954<br>9<br>25.4<br>1.4<br>2.52<br>182<br>0.699<br>2.15<br>0.165<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>5.21<br>0.399<br>3.4<br>7<br>7<br>2631750<br>93.09<br>4671560<br>850<br>28.37   | 154.1<br>0.0953<br>9<br>26.1<br>1.4<br>2.59<br>182<br>0.730<br>2.25<br>0.730<br>2.25<br>0.172<br>3.4<br>6.8<br>6.8<br>5.44<br>0.417<br>3.4<br>7<br>7<br>2690870<br>95.18<br>4778490<br>850<br>82.838   | 165.8<br>0.0053<br>9<br>28.4<br>1.4<br>2.77<br>182<br>0.786<br>2.42<br>0.185<br>3.4<br>6.9<br>6.9<br>5.85<br>0.448<br>3.4<br>7.1<br>7.1<br>2710530<br>95.87<br>4839040<br>850<br>28.53   | 168.5<br>0.0953<br>9<br>28.6<br>1.4<br>2.77<br>182<br>0.799<br>2.45<br>0.188<br>3.4<br>4.9<br>6.9<br>6.9<br>5.95<br>0.455<br>3.4<br>7.1<br>7.1<br>2652390<br>93.82<br>4745910<br>850<br>28.59   
  | 172.1<br>0.0954<br>9<br>28.6<br>1.4<br>2.76<br>182<br>0.816<br>2.51<br>0.192<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9<br>6.07<br>0.465<br>3.4<br>7.1<br>2613050<br>92.41<br>4677850<br>850<br>28.61   | 125.2<br>9<br>9<br>23.6<br>1.4<br>2.32<br>182<br>0.593<br>1.83<br>0.14<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>4.43<br>0.339<br>3.4<br>7<br>7<br>2423830<br>85.73<br>4305780<br>85.03   | 128.4<br>0.0953<br>9<br>23.6<br>1.4<br>2.32<br>182<br>0.608<br>1.87<br>0.143<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>0.347<br>3.4<br>7<br>7<br>2416380<br>85.47<br>4294270<br>850  
  | 135.1<br>0.0953<br>9<br>23.8<br>1.2<br>31<br>182<br>0.640<br>1.97<br>0.151<br>3.4<br>6.8<br>6.8<br>6.8<br>4.77<br>0.365<br>3.4<br>7<br>7<br>2364210<br>83.62<br>4223970<br>83.55  | 138.8<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.658<br>2.02<br>0.155<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>0.375<br>3.4<br>7<br>7<br>2340570<br>82.79<br>4191070<br>850<br>28.62  | 141.6<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.671<br>2.06<br>0.158<br>3.4<br>6.8<br>6.8<br>6.8<br>5<br>0.383<br>3.4<br>7<br>7<br>2299240<br>81.33<br>4119220<br>85.0<br>28.63  | 101.6<br>0.0953<br>9<br>20.6<br>1.4<br>2.02<br>182<br>0.481<br>1.48<br>0.113<br>3.4<br>6.8<br>6.8<br>6.8<br>3.59<br>0.275<br>3.4<br>6.9<br>2104320<br>7.4.43<br>3740760<br>850<br>28.41  | 102.4<br>0.0953<br>9<br>20.6<br>1.4<br>2.01<br>182<br>0.484<br>1.49<br>0.114<br>3.4<br>6.8<br>6.8<br>3.61<br>0.277<br>3.4<br>6.9<br>2090670<br><b>73.95</b><br>3718350<br>850<br>28.42   | 101.4<br>0.0953<br>9<br>20.1<br>1.4<br>1.94<br>194<br>194<br>194<br>0.480<br>1.48<br>0.480<br>0.480<br>0.480<br>0.480<br>0.480<br>0.48<br>0.58<br>0.274<br>3.4<br>6.9<br>1980290<br>70.04<br>3541890<br>850<br>28.58  
  | 103.7<br>0.0952<br>9<br>20.6<br>1.4<br>1.97<br>197<br>197<br>10.16<br>3.4<br>6.8<br>6.8<br>3.67<br>0.281<br>3.4<br>6.9<br>1987620<br>70.30<br>3563820<br>856  | 103.8<br>0.0253<br>9<br>20<br>1.4<br>1.92<br>1.92<br>1.92<br>1.92<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.49<br>0.49<br>0.49<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.492<br>0.4 |
| No. A No2<br>CO<br>CO<br>CO<br>Formaldehyde<br>Formaldehyde<br>Formaldehyde<br>Soft mass for rate (as SO2)<br>Sufur Mei as NSO4<br>Filerable Particulates<br>Total Particulates<br>PM10/2.5<br>Soft mass for rate (as SO2)<br>Sufur Mei as NSO4<br>Soft mass for rate (as SO2)<br>Sufur Mei as NSO4<br>Filerable Particulates<br>PM10/2.5<br>Stack to Conditions (Includes Tempering Arr)<br>Enhanzt vol flow<br>Enhanct of flow<br>Enhance (as Socia Velocity, Nee<br>Stack Mass flow particult<br>Soci Absorber (as particults<br>Soci Absorber (as particults)   | ib/hr<br>bb/MMUb<br>ppmvd<br>ib/hr<br>ppmvd<br>jb/hr<br>ppmvd<br>ib/hr<br>bb/h<br>ib/hr<br>ib/hr<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h          | 221.7<br>9<br>34.2<br>1.4<br>3.52<br>1.097<br>3.37<br>0.258<br>3.4<br>6.9<br>8.17<br>0.626<br>3.4<br>7.2<br>7.2<br>3694690<br>130.68<br>6510830<br>850<br>28.16<br>24.5<br>150                                       | 231.9<br>0.0854<br>9<br>34.4<br>1.4<br>3.52<br>1.098<br>3.37<br>0.258<br>3.4<br>6.9<br>8.18<br>0.626<br>3.4<br>7.2<br>7.2<br>3677090<br>130.06<br>6487710<br>650<br>28.20<br>24.5<br>150  | 218.1<br>0.0954<br>9<br>34.5<br>1.4<br>347<br>182<br>1.033<br>3.18<br>0.243<br>3.4<br>6.9<br>0.589<br>0.589<br>0.589<br>3.4<br>7.2<br>7.2<br>3631610<br>128.45<br>6429890<br>850<br>28.29<br>24.5<br>150  | 220.6<br>0.0954<br>9<br>35<br>1.4<br>3.5<br>1.82<br>1.045<br>3.21<br>0.246<br>3.4<br>6.9<br>7.78<br>0.586<br>3.4<br>7.2<br>7.2<br>7.2<br>3650390<br>123.12<br>6459400<br>850<br>28.32<br>24.5<br>150  | 226.9<br>00954<br>9<br>35.7<br>1.4<br>3.51<br>1822<br>1.075<br>3.3<br>0.253<br>3.4<br>6.9<br>6.9<br>6.9<br>8.01<br>0.613<br>3.4<br>7.2<br>7.2<br>3574250<br>126.42<br>6374300<br>8500<br>28.50<br>28.50<br>24.5<br>150  
  | 194.6<br>9<br>9<br>31.9<br>1.4<br>1.4<br>1.1<br>1.82<br>0.9211<br>2.83<br>0.217<br>3.4<br>6.9<br>6.9<br>6.9<br>6.87<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.525<br>0.526<br>0.526<br>0.526<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.525<br>0.526<br>0.525<br>0.525<br>0.526<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555  | 205.5<br>0.0953<br>9<br>3.1.4<br>1.4<br>1.31<br>182<br>0.973<br>2.99<br>0.229<br>3.4<br>6.9<br>7.25<br>0.555<br>3.4<br>6.9<br>7.25<br>0.555<br>3.4<br>6.9<br>7.25<br>0.555<br>3.4<br>6.9<br>7.25<br>0.555<br>3.4<br>6.9<br>6.9<br>7.25<br>0.555<br>3.4<br>6.9<br>6.9<br>7.25<br>0.555<br>3.4<br>6.9<br>7.25<br>0.555<br>3.4<br>6.9<br>7.25<br>0.555<br>3.4<br>6.9<br>7.25<br>0.555<br>3.4<br>6.9<br>7.25<br>0.555<br>3.4<br>6.9<br>7.25<br>0.555<br>3.4<br>6.9<br>7.25<br>0.555<br>3.4<br>6.9<br>7.25<br>0.555<br>3.4<br>6.9<br>7.25<br>0.555<br>3.4<br>6.9<br>7.25<br>0.555<br>3.4<br>6.9<br>7.25<br>0.555<br>3.4<br>6.9<br>7.25<br>0.555<br>3.4<br>6.9<br>7.25<br>0.555<br>3.4<br>6.9<br>7.25<br>0.555<br>3.4<br>6.9<br>7.25<br>0.555<br>3.4<br>6.9<br>7.25<br>0.555<br>3.4<br>6.9<br>7.25<br>0.555<br>3.4<br>6.9<br>7.25<br>7.2<br>7.2<br>7.2<br>7.2<br>7.2<br>7.2<br>7.2<br>7.2  | 225<br>0.0953<br>9<br>35.8<br>1.4<br>3.51<br>182<br>1.066<br>3.28<br>0.251<br>3.4<br>6.9<br>7.94<br>0.608<br>3.4<br>7.2<br>7.2<br>7.2<br>3572250<br>3.4<br>3.4<br>6.9<br>6.9<br>7.94<br>0.608<br>3.4<br>3.4<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>7<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5.2<br>8<br>5<br>8<br>8<br>5<br>8<br>8<br>5<br>8<br>8<br>5<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8 | 230.9<br>0.0954<br>9<br>36.1<br>1.4<br>3.52<br>1.82<br>1.094<br>3.36<br>0.257<br>3.4<br>6.9<br>8.15<br>0.624<br>3.4<br>7.2<br>7.2<br>3514710<br>124.32<br>6286140<br>850<br>28.58<br>24.5<br>150   
   | 233.3<br>0.0954<br>9<br>36.6<br>1.4<br>3.5<br>1.106<br>3.4<br>0.26<br>3.4<br>0.26<br>3.4<br>6.9<br>8.23<br>0.63<br>3.4<br>7.2<br>7.2<br>3401560<br>120.32<br>6086320<br>850<br>28.59<br>24.5<br>150  | 162.4<br>0.0853<br>9<br>27.8<br>1.4<br>2.76<br>1.62<br>0.769<br>2.37<br>0.181<br>3.4<br>6.9<br>5.73<br>0.439<br>3.4<br>6.9<br>5.73<br>0.439<br>3.4<br>7.1<br>7.1<br>7.1<br>2833560<br>100.23<br>5028550<br>5028550<br>28.36<br>5028550<br>5028550<br>150   | 169.6<br>9<br>9<br>29.1<br>1.4<br>2.88<br>1.82<br>0.803<br>2.47<br>0.189<br>3.4<br>6.9<br>6.9<br>5.99<br>6.9<br>5.99<br>3.4<br>6.9<br>5.99<br>3.4<br>7.1<br>7.1<br>2899670<br>102.56<br>5.147880<br>850<br>2.835<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.437<br>2.435<br>2.435<br>2.435<br>2.437<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.437<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.437<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.435<br>2.4355<br>2.435<br>2.435<br>2.4355<br>2.4355<br>2.4355<br>2.4355<br>2.4355<br>2.4355<br>2.4355<br>2.4355<br>2.4355<br>2.4355<br>2.4355<br>2.4355<br>2.4355<br>2.4355<br>2.4355<br>2.4355<br>2.4355<br>2.4355<br>2.4355<br>2.4355<br>2.4355<br>2.4355<br>2.4355<br>2.4355<br>2.4355<br>2.4355<br>2.4355<br>2.4355<br>2.4355<br>2.4355<br>2.4355<br>2.43555<br>2.43555<br>2.4355555<br>2.43555555555555555555555555555555555555 | 183.1<br>9<br>9<br>31.5<br>1.4<br>3.07<br>0.868<br>2.67<br>0.204<br>3.4<br>6.9<br>6.46<br>0.495<br>3.4<br>7.1<br>7.1<br>2930220<br>103.64<br>5229902<br>28.55<br>28.55<br>28.55<br>28.55<br>1.50  
  | 187.7<br>0.0953<br>9<br>32.3<br>1.4<br>3.13<br>1.2<br>0.890<br>2.73<br>0.209<br>3.4<br>6.9<br>6.63<br>0.507<br>3.4<br>6.9<br>6.63<br>0.507<br>3.4<br>7.1<br>7.1<br>2885270<br>102.05<br>5160740<br>5160740<br>28.55<br>28.55<br>150 | 190.7<br>0.0954<br>9<br>32<br>14<br>14<br>0.904<br>2.78<br>0.213<br>34<br>6.9<br>6.73<br>0.515<br>3.4<br>7.1<br>7.1<br>2817480<br>99.66<br>5042170<br>850<br>28.60<br>24.5<br>150  | 147.7<br>0.0954<br>9<br>25.4<br>1.4<br>2.52<br>182<br>0.699<br>2.15<br>0.165<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>5.21<br>0.399<br>3.4<br>7<br>7<br>2631750<br>93.09<br>4671560<br>4671550<br>28.37<br>24.5<br>150   | 154.1<br>0.0953<br>9<br>26.1<br>1.4<br>2.59<br>1.59<br>1.59<br>0.730<br>2.25<br>0.172<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>5.44<br>0.417<br>3.4<br>7<br>7<br>2690870<br><b>95.18</b><br>4778490<br>4778490<br>28.58<br>24.5<br>150   | 165.8<br>0.0953<br>9<br>28.4<br>1.4<br>2.77<br>2.42<br>0.786<br>2.42<br>0.185<br>3.4<br>6.9<br>5.85<br>0.448<br>3.4<br>7.1<br>7.1<br>7.1<br>2710530<br>95.87<br>4839040<br>850<br>28.53<br>24.5<br>150   | 168.5<br>0.0953<br>9<br>28.6<br>1.4<br>2.77<br>0.799<br>2.45<br>0.799<br>2.45<br>0.34<br>3.4<br>6.9<br>5.95<br>0.455<br>3.4<br>7.1<br>7.1<br>2652390<br><b>93.82</b><br>24552390  
  | 172.1<br>0.0954<br>9<br>28.6<br>1.4<br>2.76<br>1.4<br>2.76<br>0.816<br>2.51<br>0.192<br>3.4<br>6.9<br>6.07<br>0.465<br>3.4<br>7.1<br>7.1<br>7.1<br>2613050<br>92.4<br>4677850<br>850<br>28.61<br>24.5<br>150  | 125.2<br>0.0952<br>9<br>23.6<br>1.4<br>2.32<br>182<br>0.593<br>1.83<br>0.14<br>3.4<br>6.8<br>6.8<br>6.8<br>4.43<br>0.339<br>3.4<br>7<br>7<br>2423830<br><b>8</b> 57<br><b>8</b> 57<br><b>2</b> 423830<br><b>8</b> 57<br><b>2</b> 423830<br><b>8</b> 57<br><b>8</b> 57<br><b>2</b> 423830<br><b>8</b> 57<br><b>8</b> 57<br><b>1</b> 50<br><b>1</b> 5 | 128.4<br>0.0953<br>9<br>23.6<br>1.4<br>2.32<br>182<br>0.608<br>1.87<br>0.403<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8  | 135.1<br>0.0953<br>9<br>23.8<br>1.4<br>2.31<br>182<br>0.640<br>1.97<br>0.151<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8   | 138.8<br>0.0953<br>9<br>2.3.9<br>1.4<br>2.31<br>182<br>0.658<br>2.02<br>0.155<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>7<br>7<br>7<br>2340570<br>8.279<br>4191070<br>28.62<br>24.5<br>150   
   | 141.6<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>132<br>0.671<br>2.06<br>0.158<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>5<br>0.383<br>3.4<br>7<br>7<br>7<br>2299240<br>8133<br>4119220<br>850<br>28.63<br>24.5<br>150  | 101.6<br>0.0953<br>9<br>20.6<br>1.4<br>2.02<br>182<br>0.481<br>1.48<br>0.113<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.9<br>0.275<br>3.4<br>6.9<br>6.9<br>6.9<br>2104320<br>74.43<br>03740760<br>28.41<br>24.5<br>150   | 102.4<br>0.0953<br>9<br>20.6<br>1.4<br>2.01<br>182<br>0.484<br>1.49<br>0.144<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.9<br>2090670<br>73.95<br>3718350<br>28.42<br>24.5<br>150   | 1014<br>0.0853<br>9<br>20.1<br>1.4<br>1.82<br>0.480<br>1.48<br>0.480<br>1.48<br>0.480<br>1.48<br>6.8<br>6.8<br>3.58<br>0.274<br>3.4<br>6.9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>0.2<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.5<br>1.5<br>1.5<br>1.5<br>1.5<br>1.5<br>1.5  | 103.7<br>0.0852<br>9<br>20.6<br>1.4<br>1.97<br>1.51<br>0.491<br>1.51<br>0.491<br>1.51<br>0.491<br>1.51<br>0.491<br>3.4<br>6.8<br>6.8<br>6.8<br>6.9<br>6.9<br>1987620<br>70.30<br>2563820<br>28.65<br>24.5<br>150  
   | 103.8<br>0.0851<br>9<br>20<br>1.4<br>1.92<br>1.92<br>1.92<br>1.92<br>0.492<br>1.51<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.282<br>0.281<br>0.281<br>0.284<br>0.281<br>0.284<br>0.281<br>0.284<br>0.284<br>0.284<br>0.281<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0.284<br>0 |
| Noc As No2<br>CO<br>CO<br>CO<br>CO<br>SO<br>VOC<br>VOC<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>SO<br>SO<br>SO<br>SO<br>SO<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>SO<br>VOC<br>SO<br>SO<br>VOC<br>SO<br>SO<br>SO<br>SO<br>SO<br>SO<br>SO<br>SO<br>SO<br>SO<br>SO<br>SO<br>SO  | ib/hr<br>bb/MMUb<br>ppmvd<br>ib/hr<br>ppmvd<br>jb/hr<br>ppmvd<br>ib/hr<br>bb/h<br>ib/hr<br>ib/hr<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h          | 221.7<br>0.0554<br>9<br>34.2<br>14<br>3.52<br>182<br>1.07<br>0.258<br>3.4<br>6.9<br>6.9<br>6.9<br>8.17<br>0.626<br>3.4<br>7.2<br>7.2<br>3694690<br>10068<br>6510830<br>8500<br>28.16<br>24.5<br>150<br>Case 1        | 231.9<br>0.0954<br>9<br>34.4<br>1.4<br>3.52<br>1.098<br>3.37<br>0.258<br>0.258<br>0.258<br>0.49<br>6.9<br>8.18<br>0.626<br>3.4<br>7.2<br>7.2<br>7.2<br>3.677090<br>130.05<br>6487710<br>850<br>6487710<br>828.20<br>24.5<br>150<br>Case 8   | 218.1<br>0.0954<br>9<br>5<br>1.4<br>3.17<br>1.033<br>3.18<br>0.243<br>3.4<br>6.9<br>7.69<br>0.589<br>7.69<br>0.589<br>3.4<br>7.2<br>7.2<br>7.2<br>3631610<br>128.45<br>6428890<br>850<br>828.29<br>24.5<br>150<br>Case 2                                | 2006<br>00954<br>9<br>35<br>14<br>35<br>182<br>1.045<br>321<br>0.246<br>3.4<br>6.9<br>7.78<br>0.596<br>3.4<br>7.2<br>7.78<br>0.596<br>3.4<br>7.2<br>7.2<br>2.5<br>5<br>469400<br>850<br>850<br>28.32<br>24.5<br>150<br>Case 9   |
226.9<br>0.954<br>9<br>35.7<br>1.4<br>3.51<br>182<br>1.075<br>3.3<br>0.253<br>3.4<br>6.9<br>8.01<br>0.613<br>3.4<br>7.2<br>7.2<br>7.2<br>7.2<br>7.2<br>2<br>8574250<br>126.42<br>6374300<br>850<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>28.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>20.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>29.50<br>20.50<br>29.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50<br>20.50 | 194.6<br>0.095<br>9<br>9<br>1.4<br>3.17<br>182<br>0.921<br>2.83<br>0.217<br>3.4<br>6.9<br>6.9<br>6.87<br>0.526<br>3.4<br>7.1<br>7.1<br>7.1<br>7.1<br>7.1<br>7.1<br>7.1<br>7.1  | 205.5<br>0.095.9<br>9<br>3.1.4<br>1.4<br>1.14<br>1.12<br>0.973<br>2.99<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.24<br>0.53<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.55<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.55<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.2   | 225<br>0.0953<br>9<br>3.14<br>3.14<br>3.12<br>1.666<br>3.28<br>0.251<br>3.4<br>9<br>9<br>7.94<br>0.608<br>3.4<br>7.2<br>7.94<br>0.608<br>3.4<br>7.2<br>7.94<br>0.603<br>3.4<br>7.2<br>7.94<br>0.604<br>3.4<br>7.2<br>7.2<br>7.2<br>7.2<br>7.2<br>7.2<br>7.2<br>7.2  
   | 230.9<br>0.0954<br>9<br>1.4<br>3.52<br>1.52<br>1.52<br>1.52<br>1.54<br>0.257<br>3.4<br>6.9<br>8.15<br>0.624<br>3.4<br>7.2<br>7.2<br>7.2<br>7.2<br>7.2<br>7.2<br>7.2<br>7.2   | 233.3<br>0.0954<br>9<br>36.6<br>1.4<br>3.55<br>182<br>1.106<br>3.4<br>0.26<br>0.63<br>3.4<br>7.2<br>7.2<br>3401560<br>120.32<br>609863200<br>850<br>28.59<br>24.5<br>150<br>Case 26  | 162.4<br>0.0853<br>9<br>1.4<br>2.7.8<br>1.4<br>2.76<br>1.82<br>0.769<br>2.37<br>0.181<br>3.4<br>6.9<br>5.73<br>0.439<br>5.73<br>0.439<br>3.4<br>7.1<br>7.1<br>7.1<br>2833560<br>100.23<br>5028550<br>850<br>28.36<br>24.5<br>150<br>Case 4   | 169.6<br>0.0953<br>9<br>29.1<br>1.4<br>2.88<br>182<br>0.803<br>2.47<br>0.189<br>0.459<br>0.459<br>3.4<br>6.9<br>5.99<br>0.459<br>3.4<br>7.1<br>7.1<br>2899670<br>102256<br>5147890<br>850<br>28.37<br>24.5<br>150<br>Case 11   
  | 183.1<br>0.0054<br>9<br>31.5<br>1.4<br>3.07<br>182<br>0.868<br>2.67<br>0.204<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9  | 187.7<br>0.0053<br>9<br>32.3<br>1.4<br>3.13<br>182<br>0.890<br>2.73<br>0.890<br>2.73<br>0.209<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9  | 190.7<br>0.0954<br>9<br>32<br>1.4<br>3.09<br>182<br>0.904<br>2.78<br>0.213<br>3.4<br>6.9<br>6.9<br>6.73<br>0.515<br>3.4<br>7.1<br>7.1<br>2817480<br>99.66<br>5042170<br>850<br>28.60<br>24.5<br>150<br>Case 27   | 147.7<br>0.0954<br>9<br>4.14<br>2.52<br>0.6999<br>2.15<br>0.165<br>0.165<br>0.165<br>0.165<br>0.165<br>0.34<br>6.8<br>5.21<br>0.399<br>3.4<br>7<br>7<br>2631750<br>93.09<br>4671560<br>880<br>93.09<br>4671560<br>88.37<br>24.5<br>150<br>263.77<br>24.5<br>150<br>263.77<br>26.5<br>27<br>26.5<br>27<br>26.5<br>27<br>26.5<br>27<br>26.5<br>27<br>26.5<br>27<br>26.5<br>27<br>26.5<br>27<br>26.5<br>27<br>26.5<br>27<br>26.5<br>27<br>26.5<br>27<br>26.5<br>27<br>26.5<br>27<br>26.5<br>27<br>26.5<br>27<br>26.5<br>27<br>26.5<br>27<br>26.5<br>27<br>27<br>27<br>27<br>26.5<br>27<br>27<br>27<br>27<br>27<br>27<br>27<br>27<br>27<br>27<br>27<br>27<br>27 | 154.1<br>0.0953<br>9<br>26.1<br>1.4<br>2.59<br>1.42<br>0.730<br>2.25<br>0.172<br>3.4<br>6.8<br>6.8<br>6.8<br>5.44<br>0.417<br>3.4<br>7<br>7<br>2690870<br>95.18<br>4778490<br>850<br>28.38<br>24.5<br>150<br>Case 12   |
165.8<br>0.0953<br>9<br>28.4<br>1.4<br>2.77<br>0.786<br>2.42<br>0.185<br>0.485<br>0.485<br>0.485<br>0.485<br>3.4<br>6.9<br>5.85<br>0.448<br>3.4<br>7.1<br>7.1<br>7.1<br>7.1<br>7.1<br>7.1<br>7.1<br>8.5<br>0.537<br>4839040<br>85.0<br>28.53<br>24.5<br>150<br>150<br>150<br>150<br>150<br>150<br>150<br>150<br>150<br>15  | 168.5<br>0.0953<br>9<br>8<br>1.4<br>1.4<br>2.77<br>7<br>2.45<br>0.799<br>2.45<br>0.188<br>3.4<br>6.9<br>5.95<br>0.455<br>3.4<br>7.1<br>7.1<br>7.1<br>7.1<br>7.1<br>7.1<br>7.1<br>7.1<br>7.1<br>7.1   | 172.1<br>0.0954<br>9<br>28.6<br>1.4<br>2.76<br>182<br>0.816<br>2.51<br>0.192<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.07<br>0.465<br>3.4<br>7.1<br>7.1<br>7.1<br>7.1<br>2613050<br>92.41<br>4677850<br>850<br>828.61<br>24.5<br>150<br>28.61<br>24.5<br>25.51<br>200<br>28.61<br>24.5<br>25.51<br>200<br>28.61<br>24.52<br>25.51<br>200<br>28.61<br>24.52<br>25.51<br>25.52<br>25.51<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.52<br>25.55 | 125.2<br>9<br>9<br>23.6<br>1.4<br>2.32<br>0.593<br>1.83<br>0.14<br>3.4<br>6.8<br>4.43<br>0.334<br>7<br>7<br>7<br>2423830<br>85.73<br>4305780<br>85.93<br>24.5<br>150<br>Case 6   
   | 128.4<br>0.0953<br>9<br>23.6<br>1.4<br>2.32<br>0.608<br>1.87<br>0.143<br>3.4<br>6.8<br>4.53<br>0.347<br>7<br>7<br>2416380<br>85.47<br>4294270<br>85.47<br>4294270<br>85.4<br>28.40<br>28.40<br>28.40<br>24.5<br>150<br>Case 13   | 135.1<br>0.0953<br>9<br>23.8<br>1.4<br>2.31<br>1.97<br>0.640<br>1.97<br>0.151<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8  | 138.8<br>0.0953<br>9.9<br>1.4<br>1.3<br>1.8<br>0.658<br>0.055<br>0.155<br>0.155<br>0.45<br>0.155<br>0.44<br>0.375<br>0.3.4<br>7<br>7<br>7<br>7<br>2340570<br>82.79<br>4191070<br>850<br>28.62<br>24.55<br>150   | 141.6<br>0.0953<br>9<br>2.3.9<br>1.4<br>2.31<br>182<br>0.671<br>2.06<br>0.158<br>3.4<br>6.8<br>5<br>0.383<br>3.4<br>7<br>7<br>7<br>7<br>2299240<br>8<br>8<br>1.9<br>2299240<br>8<br>8<br>1.9<br>22663<br>2.4.5<br>1.5<br>5<br>0.2863<br>2.4.5<br>1.5<br>5<br>2.2663<br>2.4.5<br>1.5<br>5<br>2.2663<br>2.4.5<br>1.5<br>5<br>2.2663<br>2.4.5<br>5<br>5<br>2.2663<br>2.4.5<br>5<br>5<br>2.299240<br>8<br>5<br>5<br>5<br>2.299240<br>8<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5<br>5 | 101.6<br>0.0953<br>9<br>20.6<br>1.4<br>2.02<br>182<br>0.481<br>1.48<br>0.113<br>3.4<br>6.8<br>3.59<br>0.275<br>3.4<br>6.9<br>6.9<br>6.9<br>2104320<br>74.43<br>3740760<br>850<br>74.43<br>155<br>155<br>Case 7<br>Case 7  
  | 102.4<br>0.0953<br>9<br>20.6<br>1.4<br>1.42.01<br>182<br>0.484<br>1.49<br>0.114<br>3.4<br>6.8<br>3.61<br>0.277<br>3.4<br>6.9<br>6.9<br>2090670<br>72.95<br>3718350<br>850<br>28.42<br>24.55<br>155   | 1014<br>0.0953<br>9<br>20.1<br>1.4<br>1.94<br>1.82<br>0.480<br>1.48<br>0.113<br>3.4<br>6.8<br>3.58<br>0.274<br>3.4<br>6.9<br>19802200<br>70.04<br>25.541890<br>850<br>24.5<br>1.50<br>Case 20  | 103.7<br>9<br>9<br>20.6<br>1.4<br>1.97<br>1.51<br>0.491<br>1.51<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.3.4<br>6.8<br>3.6<br>7<br>0.281<br>3.4<br>6.9<br>1987620<br>70.30<br>28.65<br>24.5<br>150<br>Case 25   | 103.8<br>0.0053<br>20<br>1.5<br>1.52<br>1.52<br>1.52<br>1.52<br>0.492<br>1.51<br>0.116<br>0.5<br>6<br>8<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.9<br>9<br>6.9<br>9<br>6.9<br>1908780<br>6.9<br>9<br>5.9<br>2.8<br>6.7<br>2.4.5<br>2.8<br>2.8<br>5.0<br>2.8<br>5.0<br>2.8<br>5.0<br>2.8<br>5.0<br>2.8<br>5.0<br>2.8<br>5.0<br>2.0<br>5.0<br>2.0<br>2.0<br>2.0<br>2.0<br>2.0<br>2.0<br>2.0<br>2.0<br>2.0<br>2   
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| No. A No2<br>CO<br>CO<br>CO<br>CO<br>Solow Telefond Solow<br>Formaldehyde<br>Formaldehyde<br>Solow mass for rate (as SO2)<br>Sulur Maria H/SO4<br>Filenable Particulates<br>Total Particulates<br>PM10/2.5<br>Solow mass flow rate (as SO2)<br>Sulur Maria H/SO4<br>Filenable Particulates<br>PM10/2.5<br>Solow mass flow rate (as SO2)<br>Sulur Maria H/SO4<br>Filenable Solow<br>PM10/2.5<br>Solow mass flow rate (as SO2)<br>Sulur Maria H/SO4<br>Filenable Solow<br>PM10/2.5<br>Solow mass flow rate (as SO2)<br>Solow flow<br>Filenable Solow<br>Filenable Solow<br>Filenable Solow<br>Filenable Solow<br>Filenable Solow<br>Solow Filenable Solow<br>Solow Filenable Solow<br>Solow Filenable Solow<br>Solow Maria Solow<br>Solow Filenable Solow<br>Filenable Solow<br>Solow Filenable Solow<br>Solow<br>Solow Filenable Solow<br>Solow Filenable Solow<br>Solow<br>Solow Filena   | ib/hr<br>bb/MMUb<br>ppmvd<br>ib/hr<br>ppmvd<br>jb/hr<br>ppmvd<br>ib/hr<br>bb/h<br>ib/hr<br>ib/hr<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h          | 231.7<br>9 9<br>34.2<br>1.4<br>3.52<br>1.097<br>3.37<br>0.258<br>3.4<br>6.9<br>8.17<br>0.626<br>3.4<br>7.2<br>7.2<br>3694690<br>130.68<br>6510830<br>850<br>28.16<br>24.5<br>150<br>Case 1<br>0.86                   | 231.9<br>0.0954<br>9<br>9<br>34.4<br>14<br>3.52<br>1.82<br>1.82<br>1.82<br>1.82<br>1.82<br>0.258<br>0.258<br>0.258<br>0.626<br>0.626<br>3.4<br>7.2<br>3.677090<br>13005<br>6487710<br>850<br>28.20<br>24.5<br>150<br>Case 8<br>0.58<br>0.245<br>150<br>0.245<br>150<br>0.245<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555 | 218.1<br>0.0954<br>9<br>9<br>34.5<br>14<br>14<br>14<br>14<br>14<br>14<br>14<br>14<br>14<br>14   | 220.6<br>0.0554<br>9<br>9<br>1.4<br>3.5<br>1.82<br>1.045<br>3.21<br>0.246<br>3.4<br>6.9<br>7.78<br>0.596<br>3.4<br>7.2<br>3.50390<br>129,12<br>6469400<br>850<br>28,32<br>24,5<br>150<br>Case 9<br>0.88   | 226.9<br>0.0054<br>9<br>3.7<br>1.4<br>3.51<br>182<br>1075<br>3.3<br>0.253<br>3.4<br>6.9<br>8.01<br>0.613<br>3.4<br>7.2<br>3.574250<br>126.42<br>6374300<br>850<br>28.50<br>24.55<br>150<br>Case 15<br>0.89   |
194.6<br>9<br>9<br>31.9<br>1.4<br>3.17<br>182<br>0.921<br>2.83<br>0.217<br>3.4<br>6.9<br>6.9<br>6.9<br>6.87<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.526<br>0.525<br>0.526<br>0.526<br>0.526<br>0.526<br>0.525<br>0.526<br>0.526<br>0.526<br>0.525<br>0.526<br>0.526<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.526<br>0.525<br>0.525<br>0.526<br>0.525<br>0.525<br>0.525<br>0.526<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.525<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555<br>0.555 | 205.5<br>0.0953<br>9<br>33.3<br>1.4<br>3.1<br>1.2<br>0.973<br>2.99<br>0.229<br>3.4<br>6.9<br>7.25<br>0.555<br>3.4<br>7.2<br>7.2<br>3.448600<br>121.86<br>6.21340<br>850<br>28.37<br>24.5<br>150<br>Case 150<br>0.88  | 225<br>0.0053<br>9<br>9<br>3.8<br>1.4<br>3.5<br>1.4<br>3.2<br>1.666<br>0.251<br>3.4<br>6.9<br>6.9<br>7.94<br>0.608<br>3.4<br>7.2<br>3.72<br>5.72250<br>1.26.35<br>6.375030<br>850<br>28.52<br>24.5<br>150<br>150<br>150<br>150<br>150<br>150<br>150<br>15   | 230.9<br>0.0054<br>9<br>9<br>1.4<br>1.4<br>1.2<br>1.82<br>1.82<br>1.82<br>1.82<br>1.84<br>0.257<br>3.4<br>6.9<br>8.15<br>0.624<br>3.4<br>7.2<br>5514710<br>124.32<br>628610<br>850<br>28.58<br>24.5<br>150<br>Case 21<br>0.9   
   | 233.3<br>0.0954<br>9<br>36.6<br>1.4<br>3.5<br>1.22<br>1.106<br>3.4<br>0.25<br>3.4<br>6.9<br>8.23<br>0.63<br>3.4<br>7.2<br>7.2<br>7.2<br>3401560<br>120.32<br>6086320<br>6086320<br>28.59<br>150<br>28.55<br>150<br>24.5<br>150<br>Case 26<br>0.9   | 162.4<br>0.0853<br>9<br>77.8<br>14<br>2.76<br>182<br>0.769<br>2.37<br>0.181<br>0.181<br>0.181<br>0.181<br>0.181<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.439<br>0.235<br>0.235<br>0.235<br>0.235<br>0.235<br>0.235<br>0.235<br>0.235<br>0.235<br>0.235<br>0.235<br>0.235<br>0.235<br>0.235<br>0.235<br>0.235<br>0.235<br>0.235<br>0.235<br>0.235<br>0.235<br>0.235<br>0.235<br>0.235<br>0.235<br>0.245<br>0.245<br>0.245<br>0.255<br>0.245<br>0.255<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.255<br>0.245<br>0.245<br>0.245<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.2550<br>0.25500<br>0.25500<br>0.25500<br>0.2550000000000  | 169.6<br>0 0053<br>9<br>9<br>1.4<br>1.82<br>0.803<br>2.47<br>0.189<br>3.4<br>6.9<br>6.9<br>5.99<br>3.4<br>6.9<br>6.9<br>5.99<br>3.4<br>7.1<br>7.1<br>2899670<br>102.56<br>51474800<br>850<br>28.37<br>24.5<br>150<br>Case 11<br>0.88  |
183.1<br>0.0054<br>9<br>31.5<br>1.4<br>1.82<br>0.868<br>2.67<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.2 | 187.7<br>0 0053<br>9<br>32.3<br>1.4<br>313<br>182<br>0.890<br>2.73<br>0.209<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9  | 190.7<br>0.0954<br>9<br>32<br>1.4<br>3.09<br>182<br>0.904<br>2.78<br>0.213<br>3.4<br>6.9<br>6.73<br>0.515<br>3.4<br>7.1<br>7.1<br>2817480<br>99.66<br>5042170<br>850<br>28.60<br>24.5<br>150<br>Case 277<br>0.91   | 147.7<br>0.0054<br>9<br>9<br>1.4<br>1.4<br>2.52<br>0.699<br>2.15<br>0.165<br>0.165<br>3.4<br>6.8<br>5.21<br>0.399<br>3.4<br>7<br>7<br>2.53<br>1.50<br>850<br>850<br>2.4.5<br>1.50<br>Case 5<br>1.50<br>Case 5<br>0.88   | 154.1<br>0.0953<br>9<br>26.1<br>1.4<br>2.59<br>182<br>0.730<br>2.25<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.17 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165.8<br>0.0953<br>9<br>4<br>1.4<br>1.4<br>2.77<br>182<br>0.786<br>2.42<br>0.185<br>0.185<br>0.485<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.245<br>0.248<br>0.448<br>0.245<br>0.245<br>0.448<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.2550000000000 | 168.5<br>0.0953<br>9<br>9<br>28.5<br>1.4<br>2.7<br>182<br>0.799<br>2.45<br>0.188<br>3.4<br>6.9<br>6.9<br>5.95<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.255<br>0.455<br>0.255<br>0.455<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.255<br>0.2 | 172.1<br>0.0954<br>9<br>1.4<br>2.51<br>182<br>0.816<br>2.51<br>182<br>0.816<br>2.51<br>182<br>0.9<br>6.07<br>0.465<br>0.465<br>0.465<br>0.465<br>0.465<br>0.465<br>0.465<br>0.465<br>0.465<br>0.465<br>0.28.61<br>2.8.61<br>2.4.5<br>150<br>0<br>2.8.61<br>2.4.5<br>150<br>0<br>2.8.61<br>2.4.5<br>150<br>0<br>2.8.61<br>2.4.5<br>0.9<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 125.2<br>0.0952<br>9<br>23.6<br>1.4<br>2.32<br>0.593<br>1.83<br>0.14<br>3.4<br>6.8<br>4.43<br>0.339<br>3.4<br>7<br>7<br>2.422830<br>8570<br>8570<br>850<br>28.39<br>2.4.5<br>150<br>Case 6<br>0.88   
   | 128.4<br>0.0953<br>9<br>23.5<br>1.4<br>2.32<br>1.82<br>0.608<br>1.87<br>0.143<br>3.4<br>6.8<br>6.8<br>6.8<br>4.53<br>0.347<br>7<br>7<br>2416380<br>8547<br>4294270<br>850<br>28.40<br>24.5<br>150<br>0.88  | 135.1<br>0.0953<br>9<br>23.8<br>1.4<br>2.31<br>197<br>0.460<br>1.97<br>0.151<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8   | 138.8<br>0.0953<br>9<br>3.9<br>1.4<br>2.3.9<br>1.4<br>2.3.9<br>0.658<br>2.0.2<br>0.155<br>3.4<br>6.8<br>6.8<br>6.8<br>4.9<br>0.375<br>3.4<br>7<br>7<br>2240570<br>82.79<br>4191007<br>850<br>28.62<br>24.5<br>150<br>Case 24<br>0.5   | 141.6<br>0.0953<br>9<br>23.9<br>14<br>2.31<br>182<br>0.671<br>182<br>0.671<br>2.06<br>0.158<br>3.4<br>6.8<br>6.8<br>5<br>0.383<br>3.4<br>6.8<br>5<br>0.383<br>3.4<br>7<br>7<br>7<br>2299240<br>810<br>813<br>24.5<br>28.63<br>24.5<br>150<br>28.63<br>24.5<br>150<br>28.63<br>24.5<br>150<br>28.63<br>24.5<br>150<br>28.63<br>24.5<br>150<br>28.63<br>24.5<br>150<br>28.63<br>24.5<br>29.5<br>20.9<br>20.9<br>20.9<br>20.9<br>20.9<br>20.9<br>20.9<br>20.9   | 101.6<br>0.0953<br>9<br>20.6<br>1.4<br>2.02<br>1.42<br>0.481<br>1.48<br>0.481<br>0.481<br>0.481<br>0.481<br>0.481<br>0.481<br>0.481<br>3.4<br>6.8<br>6.8<br>0.275<br>3.4<br>6.9<br>2104320<br>7.443<br>3.40760<br>850<br>28.41<br>24.5<br>150<br>Case
7<br>0.9<br>7.05<br>0.9<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.05<br>7.0 | 102.4<br>0.0953<br>9<br>20.6<br>1.4<br>2.01<br>182<br>0.484<br>1.49<br>0.114<br>3.4<br>6.8<br>3.61<br>0.277<br>3.4<br>6.9<br>2090670<br>71.95<br>8371830<br>850<br>28.42<br>24.5<br>150<br>Case 14<br>0.814  | 101.4<br>0.0853<br>9<br>20.1<br>1.4<br>1.82<br>0.480<br>1.48<br>0.480<br>1.48<br>0.480<br>1.48<br>6.8<br>6.8<br>3.54<br>0.274<br>3.4<br>6.9<br>9<br>9<br>9<br>9<br>9<br>0.274<br>3.4<br>6.9<br>1980220<br>7004<br>3541890<br>850<br>24.5<br>150<br>0.215<br>150<br>0.215<br>150<br>0.215<br>150<br>0.215<br>150<br>0.215<br>150<br>0.215<br>150<br>0.215<br>150<br>0.215<br>150<br>0.215<br>150<br>0.274<br>0.255<br>150<br>0.274<br>0.255<br>150<br>0.274<br>0.255<br>150<br>0.274<br>0.255<br>150<br>0.274<br>0.255<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.275<br>150<br>0.255<br>150<br>0.251<br>150<br>0.251<br>150<br>0.251<br>150<br>0.251<br>150<br>0.251<br>150<br>0.251<br>150<br>0.251<br>150<br>0.251<br>150<br>0.251<br>150<br>0.251<br>150<br>0.251<br>150<br>0.251<br>150<br>0.251<br>150<br>0.251<br>150<br>0.251<br>150<br>0.251<br>150<br>0.251<br>150<br>0.251<br>150<br>0.251<br>150<br>0.251<br>150<br>0.251<br>150<br>0.251<br>150<br>0.251<br>150<br>0.511<br>150<br>150<br>150<br>150<br>150<br>150<br>150 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103.7<br>0.0852<br>9<br>9<br>20.6<br>1.4<br>1.97<br>1.82<br>0.491<br>1.51<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.281<br>0.281<br>0.281<br>0.281<br>1.57<br>0.281<br>0.281<br>0.285<br>2.45<br>2.45<br>2.45<br>1.50<br>0.51<br>1.50<br>0.51<br>1.50<br>0.51<br>1.50<br>0.51<br>1.50<br>0.51<br>1.50<br>0.51<br>1.50<br>0.51<br>1.50<br>0.51<br>1.50<br>0.51<br>1.50<br>0.55<br>0.50<br>0.55<br>0.50<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55 | 103.8<br>0.005.3<br>9<br>20<br>1.4<br>1.92<br>1.52<br>0.492<br>1.51<br>0.116<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9  
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| No. A NO2<br>CO<br>CO<br>CO<br>CO<br>SO<br>VOC<br>VOC<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>SO<br>VOC<br>SO<br>SO<br>VOC<br>SO<br>SO<br>SO<br>SO<br>SO<br>SO<br>SO<br>SO<br>SO<br>SO<br>SO<br>SO<br>SO | ib/hr<br>bb/MMUb<br>ppmvd<br>ib/hr<br>ppmvd<br>jb/hr<br>ppmvd<br>ib/hr<br>bb/h<br>ib/hr<br>ib/hr<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h          | 231.7<br>0.0554<br>9<br>34.2<br>14<br>3.52<br>182<br>1.07<br>0.258<br>3.4<br>6.9<br>6.9<br>6.9<br>8.17<br>0.626<br>3.4<br>7.2<br>7.2<br>3694690<br>10068<br>6510830<br>850<br>28.16<br>24.5<br>150<br>Case 1<br>0.86 | 231.9<br>0.0954<br>9<br>34.4<br>1.4<br>3.52<br>1.52<br>1.53<br>0.258<br>0.258<br>0.258<br>0.258<br>0.258<br>0.258<br>0.49<br>8.18<br>0.626<br>3.4<br>7.2<br>7.2<br>3677090<br>130.06<br>6487710<br>850<br>28.20<br>24.5<br>150  | 218.1<br>0.0954<br>9<br>34.5<br>1.4<br>3.12<br>1.033<br>3.18<br>0.243<br>3.4<br>6.9<br>7.69<br>0.589<br>7.69<br>3.4<br>7.2<br>7.69<br>0.589<br>3.4<br>7.2<br>7.2<br>3631610<br>122.45<br>6428890<br>850<br>28.29<br>24.5<br>150                         | 220.6<br>0.0954<br>9<br>35<br>1.4<br>3.5<br>1.82<br>1.045<br>3.21<br>0.246<br>3.4<br>6.9<br>7.78<br>0.596<br>3.4<br>7.2<br>7.78<br>0.596<br>3.4<br>7.2<br>7.2<br>7.2<br>7.2<br>3650390<br>129.12<br>6469400<br>850<br>28.32<br>24.5<br>155  | 226.9<br>0.0254<br>9<br>35.7<br>1.4<br>35.1<br>182<br>1.075<br>3.3<br>0.253<br>3.4<br>6.9<br>6.9<br>8.01<br>0.613<br>3.4<br>7.2<br>7.2<br>3574250<br>126.42<br>6374300<br>850<br>28.50<br>24.5<br>150<br>Case
15<br>0.89<br>75.77<br>15.69<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>15.7<br>1  | 194.6<br>0.0953<br>31.9<br>31.9<br>31.9<br>31.9<br>31.9<br>31.9<br>31.9<br>31.   | 205.5<br>0.0953<br>9<br>3.3<br>1.4<br>3.14<br>1.5<br>0.973<br>2.99<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.24<br>0.573<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.55<br>0.55<br>0.25<br>0.55<br>0.25<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0.55<br>0 | 225<br>0.0953<br>9<br>35.8<br>3.51<br>14<br>3.51<br>182<br>1.066<br>9<br>6.9<br>6.9<br>6.9<br>6.9<br>7.94<br>0.608<br>3.4<br>7.2<br>7.2<br>3572250<br>126.85<br>28.52<br>24.5<br>537530<br>8500<br>Case 16<br>0.88<br>75.2  
   | 230.9<br>0.0954<br>9<br>1.4<br>3.52<br>1.52<br>1.52<br>1.52<br>1.52<br>0.257<br>3.4<br>6.9<br>8.15<br>0.624<br>3.4<br>7.2<br>7.2<br>3.514710<br>124.32<br>6286140<br>850<br>28.58<br>24.55<br>150<br>Case 21<br>0.9<br>7.5.65  | 233.3<br>0.0954<br>9<br>36.6<br>1.4<br>3.5<br>182<br>1.106<br>3.4<br>0.26<br>3.4<br>0.6<br>9<br>9.9<br>8.23<br>0.6<br>3.4<br>7.2<br>7.2<br>8.23<br>0.6<br>3.4<br>7.2<br>7.2<br>100560<br>120.32<br>6608.320<br>850<br>28.59<br>150<br>120.32   | 162.4<br>0.0953<br>9<br>1.4<br>2.76<br>182<br>0.769<br>2.37<br>0.481<br>0.181<br>0.181<br>0.181<br>0.181<br>0.181<br>0.181<br>0.181<br>0.181<br>0.181<br>0.181<br>0.181<br>0.181<br>0.23<br>5028550<br>28.36<br>24.5<br>150<br>Case 4<br>0.88<br>74.03   | 169.6<br>0.0953<br>9<br>9<br>29.1<br>1.4<br>1.4<br>2.82<br>0.803<br>2.47<br>0.189<br>3.4<br>6.9<br>6.9<br>5.99<br>0.459<br>3.4<br>7.1<br>7.1<br>2.899670<br>102.56<br>5.147880<br>2.837<br>2.4.5<br>150<br>0<br>Case 11<br>0.88<br>7.4.12  
  | 183.1<br>0.0954<br>9<br>31.5<br>1.4<br>3.07<br>182<br>0.868<br>2.67<br>0.204<br>3.4<br>0.204<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9  | 187.7<br>0.0053<br>9<br>32.3<br>1.4<br>3.13<br>182<br>0.890<br>2.73<br>0.209<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9   | 190.7<br>0.0554<br>9<br>12<br>14<br>14<br>3.09<br>0.904<br>2.78<br>0.904<br>2.78<br>0.213<br>3.4<br>0.515<br>0.213<br>3.4<br>7.1<br>7.1<br>7.1<br>2817480<br>0.956<br>5042170<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>2845000<br>2845000<br>2845000000000000000000000000000000000000 | 147.7<br>0.0954<br>9<br>15.4<br>1.4<br>2.52<br>0.6999<br>2.15<br>0.165<br>0.165<br>0.165<br>0.165<br>0.165<br>0.165<br>0.165<br>0.165<br>0.165<br>0.165<br>0.165<br>0.165<br>0.3,4<br>7<br>7<br>7<br>2<br>631750<br>9<br>3,4<br>7<br>7<br>7<br>7<br>2<br>631750<br>9<br>3,4<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7  | 154.1<br>0.0953<br>9<br>26.1<br>1.4<br>2.59<br>152<br>0.730<br>2.25<br>0.172<br>3.4<br>6.8<br>6.8<br>5.44<br>0.417<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>2690870<br>95.18<br>4778490<br>850<br>28.38<br>24.5<br>150<br>28.38<br>24.5  |
165.8<br>0.0953<br>9<br>28.4<br>1.4<br>2.77<br>0.786<br>0.485<br>0.485<br>0.485<br>0.485<br>0.485<br>0.443<br>3.4<br>7.1<br>7.1<br>7.1<br>7.1<br>7.1<br>7.1<br>7.1<br>7.1<br>850<br>28.5<br>28.5<br>28.5<br>150<br>28.5<br>150<br>28.5<br>150<br>28.5<br>150<br>28.5<br>150<br>28.5<br>29.5<br>26.5<br>29.5<br>20.5<br>20.5<br>20.5<br>20.5<br>20.5<br>20.5<br>20.5<br>20  | 168.5<br>0.0953<br>9<br>28.6<br>1.4<br>2.77<br>182<br>0.799<br>2.45<br>0.188<br>3.4<br>6.9<br>5.95<br>0.455<br>3.4<br>7.1<br>7.1<br>2652390<br>93.82<br>4745910<br>850<br>28.59<br>24.5<br>150<br>Case 23<br>0.91<br>75.72   | 172.1<br>0.0954<br>9<br>28.6<br>1.4<br>2.76<br>182<br>0.816<br>2.51<br>0.192<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.07<br>0.465<br>3.4<br>7.1<br>7.1<br>7.1<br>2613050<br>92.43<br>4677850<br>828.61<br>24.5<br>150<br>Case 28<br>0.9<br>75.84  | 125.2<br>9<br>9<br>23.6<br>1.4<br>2.32<br>0.593<br>1.83<br>0.14<br>3.4<br>6.8<br>4.43<br>0.334<br>7<br>7<br>2423830<br>85.0<br>28.39<br>24.5<br>150<br>Case 6<br>0.88<br>74.21   
   | 128.4<br>0.0953<br>9<br>9<br>23.6<br>1.87<br>0.143<br>3.4<br>7<br>7<br>2416380<br>85.47<br>4294270<br>8500<br>28.40<br>28.40<br>28.40<br>28.45<br>1.87<br>0.543<br>0.64<br>7<br>24.5<br>1.87<br>0.543<br>0.543<br>0.543<br>0.545<br>1.87<br>0.543<br>0.543<br>0.545<br>1.87<br>0.543<br>0.543<br>0.545<br>1.87<br>0.543<br>0.543<br>0.543<br>0.545<br>1.87<br>0.543<br>0.543<br>0.545<br>1.87<br>0.543<br>0.545<br>1.87<br>0.543<br>0.545<br>1.87<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.553<br>0.547<br>0.553<br>0.547<br>0.553<br>0.547<br>0.553<br>0.547<br>0.553<br>0.547<br>0.553<br>0.547<br>0.545<br>0.547<br>0.545<br>0.547<br>0.545<br>0.547<br>0.545<br>0.547<br>0.545<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.547<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557     | 135.1<br>0.0953<br>9<br>1.4<br>2.31<br>1.4<br>2.31<br>1.9<br>0.640<br>1.97<br>0.151<br>3.4<br>6.8<br>6.8<br>4.77<br>0.365<br>3.4<br>7<br>7<br>7<br>2364210<br>83.62<br>4223970<br>83.62<br>44223970<br>83.62<br>1.55<br>24.55<br>24.55<br>24.55<br>24.55<br>24.55<br>24.55<br>25.55<br>24.55<br>26.55<br>26.55<br>26.55<br>26.55<br>27.59 | 138.8<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.658<br>2.02<br>0.155<br>3.4<br>6.8<br>6.8<br>6.8<br>4.9<br>0.375<br>3.4<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>5.86  | 141.6<br>0.0953<br>9<br>2.3.9<br>1.4<br>2.31<br>182<br>0.671<br>2.06<br>0.158<br>3.4<br>6.8<br>5<br>0.83<br>3.4<br>6.8<br>5<br>0.83<br>3.4<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>2299240<br>8<br>133<br>4119220<br>850<br>28.63<br>24.55<br>155  | 101.6<br>0.0953<br>20.6<br>1.4<br>2.02<br>182<br>0.413<br>1.4<br>6.8<br>6.8<br>6.8<br>3.59<br>0.275<br>3.4<br>6.9<br>0.275<br>3.4<br>6.9<br>0.275<br>3.4<br>6.9<br>0.275<br>3.4<br>9.6<br>9<br>0.2104320<br>74.43<br>3.740760<br>850<br>2.8.41<br>2.4.5<br>150<br>Case 7<br>0.9<br>74.32  
  | 102.4<br>0.0953<br>9<br>20.6<br>1.4<br>1.2<br>0.484<br>1.49<br>0.114<br>3.4<br>6.8<br>3.61<br>0.277<br>3.4<br>6.9<br>2090670<br>72.95<br>3718350<br>850<br>853<br>155<br>155   | 1014<br>0.0853<br>9<br>9<br>20.1<br>1.4<br>1.4<br>1.4<br>1.4<br>0.48<br>0.113<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>0.274<br>3.4<br>6.9<br>1980290<br>7004<br>850<br>2858<br>24.5<br>150<br>Case 20<br>0.91<br>75.59   | 103.7<br>0.0952<br>9<br>20.6<br>1.4<br>1.5<br>1.4<br>1.97<br>1.51<br>0.491<br>1.51<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.16<br>0.3.4<br>6.9<br>1987620<br>70.30<br>28.65<br>24.5<br>150<br>Case 25<br>0.91<br>76.1  | 103.8<br>0.0053<br>20<br>1.5<br>1.5<br>1.5<br>1.5<br>0.116<br>0.116<br>0.116<br>0.15<br>0.15<br>0.15<br>0.15<br>0.15<br>0.15<br>0.15<br>0.15   
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| No. A No2<br>CO<br>CO<br>CO<br>Formalderhyde<br>Formalderhyde<br>Sort mask fore varb (ns SO2)<br>Sufur Maria HSDO4<br>Filterable Particulates<br>Total Particulates<br>PM10/2.5<br>SOX mass flow rate (as SO2)<br>Sufur Affat as HSDO4<br>Filterable Particulates<br>PM10/2.5<br>Sox mass flow rate (as SO2)<br>Sufur Affat as HSDO4<br>Filterable Particulates<br>PM10/2.5<br>State L Conditions (Includes Tompering Ar)<br>Extended Sas Stack Vedoor, Piece<br>Stack Mass flow per stack<br>Stack Temperature<br>Stack Mass flow per stack<br>Stack Network Allows Cardes<br>EXAMALTS ANAXISS % VOL.<br>Aggin<br>Nicogen  | ib/hr<br>bh/MMbu<br>ppmvd<br>ib/hr<br>ppmvd<br>ib/hr<br>ppmvd<br>ib/hr<br>ib/hr<br>ib/hr<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h                  | 231.7<br>0.0954<br>9<br>9<br>34.2<br>14<br>3.52<br>182<br>182<br>182<br>182<br>182<br>182<br>182<br>18   | 231.9<br>0.0854<br>9<br>9<br>34.4<br>1.4<br>3.52<br>1.0258<br>3.4<br>6.9<br>6.9<br>8.18<br>0.626<br>3.4<br>7.2<br>7.2<br>3677090<br>13006<br>64877100<br>13006<br>64877100<br>13006<br>64877100<br>13006<br>64877100<br>13006   | 218.1<br>0.0954<br>9<br>9<br>34.5<br>14<br>14<br>14<br>14<br>14<br>14<br>14<br>14<br>14<br>14   | 220.6<br>0.0554<br>9<br>9<br>1.4<br>3.5<br>1.82<br>1.045<br>3.21<br>0.246<br>3.4<br>6.9<br>7.78<br>0.596<br>3.4<br>7.2<br>7.2<br>3650390<br>129.12<br>6469400<br>850<br>28.32<br>24.5<br>150<br>Case 9<br>0.88<br>73.77<br>14.5<br>150<br>14.5<br>150<br>150<br>150<br>150<br>14.5<br>150<br>150<br>150<br>150<br>150<br>150<br>150<br>15   | 226.9<br>0.0054<br>9<br>35.7<br>1.4<br>3.51<br>182<br>1075<br>3.3<br>0.253<br>3.4<br>6.9<br>8.01<br>0.613<br>3.4<br>7.2<br>25.7<br>26.59<br>10.643<br>6374300<br>150<br>28.50<br>28.50<br>24.5<br>150<br>Case
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   | 230.9<br>0.0954<br>9<br>9<br>1.4<br>1.4<br>1.52<br>1.82<br>1.82<br>1.82<br>1.82<br>1.82<br>1.82<br>1.82<br>1.694<br>3.46<br>0.624<br>3.4<br>7.2<br>5514710<br>124.82<br>6286140<br>850<br>28.58<br>24.5<br>150<br>Case 21<br>0.9<br>7.565<br>14.55<br>14.55<br>14.55<br>14.55<br>14.55<br>14.55<br>15.55<br>14.55<br>14.55<br>15.55<br>14.55<br>14.55<br>15.55<br>14.55<br>15.55<br>14.55<br>15.55<br>14.55<br>15.55<br>14.55<br>15.55<br>14.55<br>15.55<br>14.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55<br>15.55 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233.3<br>0.0954<br>9<br>36.6<br>1.4<br>3.5<br>1.2<br>1.106<br>3.4<br>0.26<br>0.26<br>3.4<br>0.26<br>0.26<br>0.9<br>8.23<br>0.63<br>3.4<br>7.2<br>7.2<br>3401560<br>120.62<br>850<br>28.59<br>150<br>(28.62<br>6.9<br>75.75<br>14.32<br>(28.62<br>14.35<br>150<br>(28.62<br>14.35<br>(28.62<br>14.35<br>(28.62<br>14.35<br>(28.62<br>14.35<br>(28.62<br>14.35<br>(28.62<br>15.35<br>(28.62<br>14.35<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.62<br>(28.   | 162.4<br>0.0853<br>9<br>27.8<br>1.4<br>2.7<br>1.82<br>0.769<br>2.37<br>0.181<br>3.4<br>6.9<br>6.9<br>5.73<br>0.439<br>3.4<br>7.1<br>7.1<br>2833560<br>10.253<br>50285560<br>28.36<br>24.5<br>150<br>Case 4<br>0.88<br>74.03<br>14.84<br>0.88<br>74.03<br>14.84<br>0.88<br>74.03<br>14.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15.85<br>15. | 169.6<br>0.0953<br>9<br>9<br>29.1<br>1.4<br>28.1<br>82<br>0.803<br>2.47<br>0.189<br>3.4<br>6.9<br>5.99<br>0.459<br>5.99<br>0.459<br>3.4<br>7.1<br>7.1<br>7.1<br>7.1<br>2899670<br>102.56<br>5.147800<br>855<br>028.37<br>24.5<br>150<br>Case 11<br>0.882<br>150<br>24.5<br>150<br>24.5<br>150  
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183.1<br>0.0054<br>9<br>9<br>31.5<br>1.4<br>1.82<br>0.868<br>2.67<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.204<br>0.205<br>0.204<br>0.225<br>0.225<br>0.225<br>0.2245<br>1.5<br>0.2245<br>0.2245<br>0.2245<br>0.2245<br>0.2245<br>0.2245<br>0.2245<br>0.2245<br>0.2245<br>0.2245<br>0.2245<br>0.2245<br>0.2245<br>0.2245<br>0.204<br>0.205<br>0.245<br>0.225<br>0.245<br>0.205<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.245<br>0.252<br>0.252<br>0.252<br>0.252<br>0.252<br>0.252<br>0.252<br>0.252<br>0.252<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0.455<br>0   | 187.7<br>0 0053<br>9<br>32.3<br>14<br>182<br>0.890<br>2.73<br>0.209<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9  | 190.7<br>0.0954<br>9<br>32<br>14<br>3.09<br>0.214<br>182<br>0.904<br>7.28<br>0.904<br>7.28<br>0.904<br>6.9<br>6.9<br>6.9<br>6.73<br>0.515<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>7.10<br>7.11<br>80<br>80<br>28.12<br>80<br>20<br>24.14<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80  | 147.7<br>0.0054<br>9<br>9<br>4<br>1.4<br>2.52<br>0.699<br>2.15<br>0.165<br>0.165<br>0.165<br>0.165<br>0.165<br>0.165<br>0.165<br>0.165<br>0.165<br>0.165<br>0.165<br>0.165<br>0.46<br>0.399<br>0.34<br>7<br>7<br>7<br>7<br>2631750<br>0.263<br>50<br>263<br>263<br>263<br>263<br>263<br>263<br>263<br>263<br>263<br>263   | 154.1<br>0.0953<br>26.1<br>1.4<br>2.59<br>0.730<br>2.25<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.172<br>0.17 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165.8<br>0.0953<br>9<br>28.4<br>1.4<br>2.7<br>0.265<br>0.185<br>0.185<br>0.185<br>0.185<br>0.185<br>0.185<br>0.485<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.448<br>0.457<br>150<br>0<br>0.853<br>150<br>0<br>0.853<br>150<br>0<br>0.853<br>0.9<br>75.26<br>14.84  | 168.5<br>0.0953<br>9<br>9<br>26.6<br>1.4<br>2.7<br>182<br>0.799<br>2.45<br>0.188<br>3.4<br>6.9<br>6.9<br>5.95<br>0.455<br>3.4<br>7.1<br>7.1<br>2652390<br>0<br>9 24.5<br>150<br>28.59<br>24.5<br>150<br>28.59<br>24.5<br>150   | 172.1<br>0.0954<br>9<br>14<br>14<br>2.51<br>182<br>0.816<br>2.51<br>182<br>0.9<br>6.07<br>0.465<br>3.4<br>7.1<br>7.1<br>2613050<br>02.41<br>4677850<br>850<br>28.61<br>24.5<br>150<br>24.5<br>150<br>24.5<br>150  |
125.2<br>0.0952<br>9<br>23.6<br>1.4<br>2.32<br>0.593<br>1.8<br>0.14<br>3.4<br>0.14<br>3.4<br>6.8<br>4.43<br>0.339<br>3.4<br>7<br>7<br>2423830<br>850<br>28.5<br>24.5<br>150<br>6<br>0.88<br>74.21<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.38<br>15.3 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128.4<br>0.0953<br>9<br>9<br>23.6<br>1.4<br>1.82<br>0.608<br>1.87<br>0.143<br>3.4<br>6.8<br>6.8<br>6.8<br>4.53<br>0.347<br>3.4<br>6.8<br>0.347<br>3.4<br>7<br>7<br>2416380<br>850<br>28.5<br>150<br>28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>15.28<br>1 | 135.1<br>0.0953<br>9<br>23.8<br>1.4<br>1.4<br>1.4<br>1.4<br>1.82<br>0.640<br>1.97<br>0.151<br>3.4<br>6.8<br>6.8<br>4.77<br>7<br>2364210<br>850<br>28.55<br>24.5<br>150<br>9<br>0.9<br>75.39<br>0.9<br>152<br>152  |
138.8<br>0.0953<br>9<br>23.9<br>23.9<br>23.9<br>2.0<br>5<br>0.055<br>0.055<br>0.055<br>0.055<br>0.055<br>0.055<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.075<br>0.0750<br>0.0750<br>0.0750<br>0.0750<br>0.0750<br>0.07500 | 141.6<br>0953<br>23.9<br>24.9<br>14<br>231<br>20671<br>182<br>0.671<br>206<br>0.158<br>3.4<br>6.8<br>6.8<br>6.8<br>5<br>0.383<br>3.4<br>6.8<br>5<br>0.383<br>3.4<br>7<br>7<br>7<br>2299240<br>850<br>28.63<br>24.5<br>5<br>26.63<br>24.5<br>150<br>26.9<br>75.98<br>14.99  | 101.6<br>0.0953<br>9<br>20.6<br>1.4<br>2.02<br>1.4<br>2.02<br>1.42<br>0.481<br>1.48<br>0.113<br>3.4<br>6.8<br>0.113<br>3.4<br>6.8<br>0.275<br>3.4<br>6.9<br>0.275<br>3.4<br>6.9<br>2.104320<br>7.443<br>3.74050<br>850<br>2.841<br>2.455<br>1.50<br>Case 7<br>0.9<br>7.4.32<br>1.571<br>0.9<br>7.4.32<br>1.571<br>0.9<br>7.4.32<br>1.571<br>0.9<br>7.4.32<br>1.571<br>0.9<br>7.4.32<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.572<br>1.57   | 102.4<br>0.0953<br>9<br>9<br>20.6<br>1.4<br>2.01<br>1.82<br>0.484<br>1.49<br>0.114<br>3.4<br>6.8<br>3.61<br>0.277<br>3.4<br>6.9<br>2090670<br>7.205<br>850<br>28.5<br>150<br>Case 14<br>Case 14 | 101.4<br>0.0953<br>9<br>20.1<br>1.4<br>1.94<br>1.94<br>1.82<br>0.480<br>1.48<br>0.113<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.8<br>6.9<br>9<br>1980290<br>70.04<br>3541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>85541890<br>8555<br>85541890<br>8555<br>855<br>855<br>855<br>855<br>855<br>855<br>8   |
103.7<br>0.0852<br>9<br>9<br>20.6<br>1.4<br>1.97<br>1.82<br>0.491<br>1.51<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.281<br>0.285<br>0.281<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.285<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0.584<br>0  | 103.8<br>0.0053<br>9<br>20<br>1.4<br>1.92<br>1.51<br>0.116<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>3.67<br>0.281<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9<br>5.2<br>3.42450<br>8.2455<br>2.425<br>1.50<br>Case 30<br>0.91<br>7.628<br>1.558   |
| No. A NO2<br>CO<br>CO<br>CO<br>CO<br>SO<br>VOC<br>VOC<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>VOC<br>SO<br>SO<br>VOC<br>SO<br>SO<br>VOC<br>SO<br>SO<br>SO<br>SO<br>SO<br>SO<br>SO<br>SO<br>SO<br>SO<br>SO<br>SO<br>SO | ib/hr<br>bh/MMbu<br>ppmvd<br>ib/hr<br>ppmvd<br>ib/hr<br>ppmvd<br>ib/hr<br>ib/hr<br>ib/hr<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h<br>ib/h                  | 231.7<br>0.0554<br>9<br>34.2<br>14<br>3.52<br>182<br>1.07<br>0.258<br>3.4<br>6.9<br>6.9<br>6.9<br>8.17<br>0.626<br>3.4<br>7.2<br>7.2<br>3694690<br>10068<br>6510830<br>850<br>28.16<br>24.5<br>150<br>Case 1<br>0.86 | 231.9<br>0.0954<br>9<br>34.4<br>1.4<br>3.52<br>1.52<br>1.53<br>0.258<br>0.258<br>0.258<br>0.258<br>0.258<br>0.258<br>0.258<br>0.258<br>0.34<br>7.2<br>7.2<br>7.2<br>3677090<br>130.06<br>6487710<br>850<br>28.20<br>24.5<br>150<br>Case 8<br>0.955  | 218.1<br>0.0954<br>9<br>34.5<br>1.4<br>3.12<br>1.033<br>3.18<br>0.243<br>3.4<br>6.9<br>7.69<br>0.589<br>7.69<br>3.4<br>7.2<br>7.69<br>0.589<br>3.4<br>7.2<br>7.2<br>3631610<br>122.45<br>6428890<br>850<br>28.29<br>24.5<br>150                         | 220.6<br>0.0954<br>9<br>35<br>1.4<br>3.5<br>1.82<br>1.045<br>3.21<br>0.246<br>3.4<br>6.9<br>7.78<br>0.596<br>3.4<br>7.2<br>7.78<br>0.596<br>3.4<br>7.2<br>7.2<br>7.2<br>7.2<br>3650390<br>129.12<br>6469400<br>850<br>28.32<br>24.5<br>155  | 226.9<br>0.0254<br>9<br>35.7<br>1.4<br>35.1<br>182<br>1.075<br>3.3<br>0.253<br>3.4<br>6.9<br>6.9<br>8.01<br>0.613<br>3.4<br>7.2<br>7.2<br>3574250<br>126.42<br>6374300<br>850<br>28.50<br>24.5<br>150<br>Case 15<br>0.89<br>75.07   
  | 194.6<br>0.0953<br>31.9<br>31.9<br>31.9<br>31.9<br>31.9<br>31.9<br>31.9<br>31.   | 205.5<br>0.0953<br>9<br>3.3<br>1.4<br>3.14<br>1.5<br>0.973<br>2.99<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.229<br>0.24<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5   | 225<br>0.0953<br>9<br>35.8<br>3.51<br>14<br>3.51<br>182<br>1.066<br>9<br>6.9<br>6.9<br>6.9<br>6.9<br>7.94<br>0.608<br>3.4<br>7.2<br>7.2<br>3572250<br>126.85<br>28.52<br>24.5<br>537530<br>8500<br>Case 16<br>0.88<br>75.2  | 230.9<br>0.0954<br>9<br>1.4<br>3.52<br>1.52<br>1.52<br>1.52<br>1.52<br>0.257<br>3.4<br>6.9<br>8.15<br>0.624<br>3.4<br>7.2<br>7.2<br>3.514710<br>124.32<br>6286140<br>850<br>28.58<br>24.55<br>150<br>Case 21<br>0.9<br>7.5.65  
   | 233.3<br>0.0954<br>9<br>36.6<br>1.4<br>3.5<br>182<br>1.106<br>3.4<br>0.26<br>3.4<br>0.6<br>9<br>9.9<br>8.23<br>0.6<br>3.4<br>7.2<br>7.2<br>8.23<br>0.6<br>3.4<br>7.2<br>7.2<br>100560<br>120.32<br>6608.320<br>850<br>28.59<br>150<br>120.32   | 162.4<br>0.0953<br>9<br>1.4<br>2.76<br>182<br>0.769<br>2.37<br>0.481<br>0.181<br>0.181<br>0.181<br>0.181<br>0.181<br>0.181<br>0.181<br>0.181<br>0.181<br>0.181<br>0.181<br>0.181<br>0.23<br>5028550<br>28.36<br>24.5<br>150<br>Case 4<br>0.88<br>74.03   | 169.6<br>0.0953<br>9<br>9<br>29.1<br>1.4<br>1.4<br>2.82<br>0.803<br>2.47<br>0.189<br>3.4<br>6.9<br>6.9<br>5.99<br>0.459<br>3.4<br>7.1<br>7.1<br>2.899670<br>102.56<br>5.147880<br>2.837<br>2.4.5<br>150<br>0<br>Case 11<br>0.88<br>7.4.12   | 183.1<br>0.0954<br>9<br>31.5<br>1.4<br>3.07<br>182<br>0.868<br>2.67<br>0.204<br>3.4<br>0.204<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9   
  | 187.7<br>0.0053<br>9<br>32.3<br>1.4<br>3.13<br>182<br>0.890<br>2.73<br>0.209<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9   | 190.7<br>0.0554<br>9<br>12<br>14<br>14<br>3.09<br>0.904<br>2.78<br>0.904<br>2.78<br>0.213<br>3.4<br>0.515<br>0.213<br>3.4<br>7.1<br>7.1<br>7.1<br>2817480<br>0.956<br>5042170<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>28450<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>284500<br>2845000<br>2845000<br>2845000000000000000000000000000000000000 | 147.7<br>0.0954<br>9<br>15.4<br>1.4<br>2.52<br>0.6999<br>2.15<br>0.165<br>0.165<br>0.165<br>0.165<br>0.165<br>0.165<br>0.165<br>0.165<br>0.165<br>0.165<br>0.165<br>0.165<br>0.3,4<br>7<br>7<br>7<br>2<br>631750<br>9<br>3,4<br>7<br>7<br>7<br>7<br>2<br>631750<br>9<br>3,4<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7  | 154.1<br>0.0953<br>9<br>26.1<br>1.4<br>2.59<br>152<br>0.730<br>2.25<br>0.172<br>3.4<br>6.8<br>6.8<br>5.44<br>0.417<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>2690870<br>95.18<br>4778490<br>850<br>28.38<br>24.5<br>150<br>28.38<br>24.5  | 165.8<br>0.0953<br>9<br>28.4<br>1.4<br>2.77<br>0.786<br>0.485<br>0.485<br>0.485<br>0.485<br>0.485<br>0.443<br>3.4<br>7.1<br>7.1<br>7.1<br>7.1<br>7.1<br>7.1<br>7.1<br>7.1<br>850<br>28.5<br>28.5<br>28.5<br>150<br>28.5<br>150<br>28.5<br>150<br>28.5<br>150<br>28.5<br>150<br>28.5<br>29.5<br>26.5<br>29.5<br>20.5<br>20.5<br>20.5<br>20.5<br>20.5<br>20.5<br>20.5<br>20  | 168.5<br>0.0953<br>9<br>28.6<br>1.4<br>2.77<br>182<br>0.799<br>2.45<br>0.188<br>3.4<br>6.9<br>5.95<br>0.455<br>3.4<br>7.1<br>7.1<br>2652390<br>93.82<br>4745910<br>850<br>28.59<br>24.5<br>150<br>Case 23<br>0.91<br>75.72  
  | 172.1<br>0.0954<br>9<br>28.6<br>1.4<br>2.76<br>182<br>0.816<br>2.51<br>0.192<br>3.4<br>6.9<br>6.9<br>6.9<br>6.9<br>6.9<br>6.07<br>0.465<br>3.4<br>7.1<br>7.1<br>7.1<br>2613050<br>92.43<br>4677850<br>828.61<br>24.5<br>150<br>Case 28<br>0.9<br>75.84  | 125.2<br>9<br>9<br>23.6<br>1.4<br>2.32<br>0.593<br>1.83<br>0.14<br>3.4<br>6.8<br>4.43<br>0.334<br>7<br>7<br>2423830<br>85.0<br>28.39<br>24.5<br>150<br>Case 6<br>0.88<br>74.21   |
128.4<br>0.0953<br>9<br>9<br>23.6<br>1.87<br>0.143<br>3.4<br>7<br>7<br>2416380<br>85.47<br>4294270<br>8500<br>28.40<br>28.40<br>28.40<br>28.45<br>1.87<br>0.543<br>0.64<br>7<br>24.5<br>1.87<br>0.543<br>0.543<br>0.543<br>0.545<br>1.87<br>0.543<br>0.543<br>0.545<br>1.87<br>0.543<br>0.543<br>0.545<br>1.87<br>0.543<br>0.543<br>0.543<br>0.545<br>1.87<br>0.543<br>0.543<br>0.545<br>1.87<br>0.543<br>0.545<br>1.87<br>0.543<br>0.545<br>1.87<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.543<br>0.547<br>0.553<br>0.547<br>0.554<br>0.547<br>0.554<br>0.547<br>0.554<br>0.547<br>0.554<br>0.547<br>0.554<br>0.547<br>0.554<br>0.547<br>0.554<br>0.547<br>0.554<br>0.547<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557<br>0.557     | 135.1<br>0.0953<br>9<br>1.4<br>2.31<br>1.4<br>2.31<br>1.9<br>0.640<br>1.97<br>0.151<br>3.4<br>6.8<br>6.8<br>4.77<br>0.365<br>3.4<br>7<br>7<br>7<br>2364210<br>83.62<br>4223970<br>83.62<br>44223970<br>83.62<br>1.55<br>24.55<br>24.55<br>24.55<br>24.55<br>24.55<br>24.55<br>25.55<br>24.55<br>26.55<br>26.55<br>26.55<br>26.55<br>27.59 | 138.8<br>0.0953<br>9<br>23.9<br>1.4<br>2.31<br>182<br>0.658<br>2.02<br>0.155<br>3.4<br>6.8<br>6.8<br>6.8<br>4.9<br>0.375<br>3.4<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>5.86  | 141.6<br>0.0953<br>9<br>2.3.9<br>1.4<br>2.31<br>182<br>0.671<br>2.06<br>0.158<br>3.4<br>6.8<br>5<br>0.83<br>3.4<br>6.8<br>5<br>0.83<br>3.4<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>2299240<br>8<br>133<br>4119220<br>850<br>28.63<br>24.55<br>155  | 101.6<br>0.0953<br>20.6<br>1.4<br>2.02<br>182<br>0.413<br>1.4<br>6.8<br>6.8<br>6.8<br>3.59<br>0.275<br>3.4<br>6.9<br>0.275<br>3.4<br>6.9<br>0.275<br>3.4<br>6.9<br>0.275<br>3.4<br>9.6<br>9<br>0.2104320<br>74.43<br>3.740760<br>850<br>2.8.41<br>2.4.5<br>150<br>Case 7<br>0.9<br>74.32   | 102.4<br>0.0953<br>9<br>20.6<br>1.4<br>1.2<br>0.484<br>1.49<br>0.114<br>3.4<br>6.8<br>3.61<br>0.277<br>3.4<br>6.9<br>2090670<br>72.95<br>3718350<br>850<br>853<br>155<br>155  
  | 1014<br>0.0853<br>9<br>9<br>20.1<br>1.4<br>1.4<br>1.4<br>1.4<br>0.48<br>0.113<br>3.4<br>6.8<br>6.8<br>6.8<br>6.8<br>0.274<br>3.4<br>6.9<br>1980290<br>7004<br>850<br>2858<br>24.5<br>150<br>Case 20<br>0.91<br>75.59   | 103.7<br>0.0952<br>9<br>20.6<br>1.4<br>1.5<br>1.4<br>1.97<br>1.51<br>0.491<br>1.51<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.116<br>0.16<br>0.5<br>0.5<br>1.4<br>1.5<br>0.491<br>1.5<br>1.5<br>0.5<br>1.5<br>0.5<br>1.5<br>0.5<br>1.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0.5<br>0  | 103.8<br>0.0053<br>20<br>1.5<br>1.5<br>1.5<br>1.5<br>0.116<br>0.116<br>0.116<br>0.15<br>0.15<br>0.15<br>0.15<br>0.15<br>0.15<br>0.15<br>0.15  |

Stack Exit Emissions (per unit)																															
NOx Volume fraction, drv. at 15 % O2	ppm	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
NOx mass flow rate (as NO2)	lb/hr	23.10	23.10	21.70	22.00	22.60	19.40	20.50	22.40	23.00	23.30	16.20	16.90	18.30	18.70	19.00	14.70	15.40	16.50	16.80	17.20	12.50	12.80	13.50	13.80	14.10	10.10	10.20	10.10	10.30	10.30
CO Volume fraction. drv. at 15 % O2	ppm	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
CO mass flow rate	lb/hr	11.20	11.30	10.60	10.70	11.00	9.40	10.00	10.90	11.20	11.30	7.90	8.20	8.90	9.10	9.30	7.20	7.50	8.10	8.20	8.40	6.10	6.20	6.60	6.70	6.90	4.90	5.00	4.90	5.00	5.00
VOC Volume fraction, drv. at 15 % O2	ppm	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
VOC mass flow rate (as methane)	lb/hr	3.20	3.20	3.00	3.10	3.20	2.70	2.90	3.10	3.20	3.20	2.30	2.40	2.50	2.60	2.70	2.10	2.10	2.30	2.30	2.40	1.70	1.80	1.90	1.90	2.00	1.40	1.40	1.40	1.40	1.40
NH3 Volume fraction. drv. at 15 % O2	ppm	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
NH3 mass flow rate	lb/h	17.10	17.10	16.10	16.30	16.70	14.40	15.20	16.60	17.00	17.20	12.00	12.50	13.50	13.90	14.10	10.90	11.40	12.20	12.40	12.70	9.20	9.50	10.00	10.20	10.50	7.50	7.50	7.50	7.70	7.70
Formaldehyde	ppbvd @ 15% O2	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00	91.00
Formaldehyde	lb/h	0.55	0.55	0.52	0.52	0.54	0.46	0.49	0.53	0.55	0.55	0.38	0.40	0.43	0.44	0.45	0.35	0.36	0.39	0.40	0.41	0.30	0.30	0.32	0.33	0.34	0.24	0.24	0.24	0.25	0.25
Stack CO2 mass flow rate	lb/h	288571.43	288571.43	271428.57	274285.71	282857.14	242857.14	256190.48	280952.38	287619.05	290476.19	202857.14	211428.57	227619.05	233333.33	237142.86	183809.52	192380.95	206666.67	209523.81	214285.71	156190.48	160000	168571.43	173333.33	176190.48	126666.67	127619.05	126666.67	129523.81	129523.81
CO2	lb/MWh	1190	1186	1195	1195	1171	1207	1197	1175	1161	1162	1261	1235	1190	1177	1186	1305	1284	1235	1225	1242	1553	1495	1410	1399	1410	1882	1866	1871	1951	1965
0.4 grains/100 SCF																															
SOx mass flow rate (as SO2)	lb/h	3.40	3.40	3.20	3.20	3.30	2.80	3.00	3.30	3.40	3.40	2.40	2.50	2.70	2.70	2.80	2.10	2.20	2.40	2.50	2.50	1.80	1.90	2.00	2.00	2.10	1.50	1.50	1.50	1.50	1.50
SOx	lb/MMBtu	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014	0.0014
Sulfur Mist as H2SO4	lb/h	2.30	2.30	2.10	2.20	2.20	1.90	2.00	2.20	2.30	2.30	1.60	1.70	1.80	1.80	1.90	1.50	1.50	1.60	1.70	1.70	1.20	1.30	1.30	1.40	1.40	1.00	1.00	1.00	1.00	1.00
Sulfur Mist as H2SO4	lb/MMBtu	0.0009	0.0009	0.0009	0.0010	0.0009	0.0009	0.0009	0.0009	0.0010	0.0009	0.0009	0.0010	0.0009	0.0009	0.0010	0.0010	0.0009	0.0009	0.0010	0.0009	0.0009	0.0010	0.0009	0.0010	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009
Filterable Particulates	lb/h	7.48	7.46	7.27	7.29	7.26	6.95	7.08	7.24	7.24	7.08	6.44	6.46	6.43	6.36	6.35	6.32	6.38	6.31	6.25	6.26	6.01	6.04	6.07	6.08	6.06	5.69	5.69	5.62	5.61	5.56
Filterable Particulates	lb/MMBtu	0.0031	0.0031	0.0032	0.0032	0.0031	0.0034	0.0033	0.0031	0.0030	0.0029	0.0038	0.0036	0.0033	0.0032	0.0032	0.0041	0.0039	0.0036	0.0035	0.0035	0.0046	0.0045	0.0043	0.0042	0.0041	0.0053	0.0053	0.0053	0.0051	0.0051
Total Particulates	lb/h	14.30	14.20	14.00	14.00	13.70	13.60	13.70	13.70	13.50	13.00	12.80	12.70	12.20	11.90	11.80	12.80	12.80	12.30	12.00	11.90	12.40	12.40	12.30	12.20	12.10	12.00	12.00	11.80	11.70	11.50
PM10/2.5	lb/h	14.30	14.20	14.00	14.00	13.70	13.60	13.70	13.70	13.50	13.00	12.80	12.70	12.20	11.90	11.80	12.80	12.80	12.30	12.00	11.90	12.40	12.40	12.30	12.20	12.10	12.00	12.00	11.80	11.70	11.50
PM10/2.5	lb/MMBtu	0.0059	0.0058	0.0061	0.0061	0.0058	0.0067	0.0064	0.0058	0.0056	0.0053	0.0075	0.0071	0.0064	0.0060	0.0059	0.0083	0.0079	0.0071	0.0068	0.0066	0.0094	0.0092	0.0087	0.0084	0.0081	0.0113	0.0112	0.0111	0.0107	0.0106
1.0 grains/100 SCF																															
SOx mass flow rate (as SO2)	lb/b	8.20	8.20	7 70	7.80	8.00	6.90	7 30	7.90	8.10	8.20	5.70	6.00	6.50	6.60	6.70	5.20	5.40	5.90	5.90	6.10	4 40	4.50	4.80	4 90	5.00	3.60	3.60	3.60	3.70	3.70
SOx	lb/MMBtu	0.0034	0.0034	0.0034	0.0034	0.0034	0.0034	0.0034	0.0033	0.0033	0.0034	0.0033	0.0034	0.0034	0.0034	0.0034	0.0034	0.0033	0.0034	0.0033	0.0034	0.0033	0.0033	0.0034	0.0034	0.0034	0.0034	0.0034	0.0034	0.0034	0.0034
Sulfur Mist as H2SO4	lb/h	5.50	5.50	5.20	5.30	5.40	4.60	4.90	5.40	5.50	5.60	3.90	4.00	4.40	4.50	4.50	3.50	3.70	4.00	4.00	4.10	3.00	3.10	3.20	3.30	3.40	2.40	2.40	2.40	2.50	2.50
Sulfur Mist as H2SO4	lb/MMBtu	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0022	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0022	0.0023	0.0023	0.0023
Filterable Particulates	lb/h	11.90	11.90	11.40	11.50	11.50	10.70	11.00	11.50	11.50	11.30	9.52	9.63	9.74	9.69	9.71	9.14	9.32	9.36	9.31	9.35	8.41	8.49	8.62	8.68	8.69	7.63	7.64	7.53	7.55	7.49
Filterable Particulates	lb/MMBtu	0.0049	0.0049	0.0050	0.0050	0.0048	0.0052	0.0051	0.0049	0.0048	0.0046	0.0056	0.0054	0.0051	0.0049	0.0049	0.0059	0.0058	0.0054	0.0053	0.0052	0.0064	0.0063	0.0061	0.0060	0.0058	0.0072	0.0071	0.0071	0.0069	0.0069
Total Particulates	lb/h	19.70	19.60	19.10	19.10	18.90	18.10	18.50	18.80	18.70	18.00	16.50	16.50	16.10	15.70	15.60	16.20	16.40	15.90	15.60	15.50	15.30	15.40	15.40	15.40	15.30	14.40	14.30	14.10	14.00	13.80
PM10/2.5	lb/h	19.70	19.60	19.10	19.10	18.90	18.10	18.50	18.80	18.70	18.00	16.50	16.50	16.10	15.70	15.60	16.20	16.40	15.90	15.60	15.50	15.30	15.40	15.40	15.40	15.30	14.40	14.30	14.10	14.00	13.80
PM10/2.5	lb/MMBtu	0.0081	0.0081	0.0084	0.0083	0.0079	0.0089	0.0086	0.0080	0.0077	0.0074	0.0097	0.0093	0.0084	0.0080	0.0078	0.0105	0.0101	0.0091	0.0088	0.0086	0.0116	0.0114	0.0109	0.0106	0.0103	0.0135	0.0133	0.0133	0.0128	0.0127
20.0 grains/100 SCF																															
SOx mass flow rate (as SO2)	lb/h	170.00	170.00	160.00	160.00	165.00	140.00	150.00	165.00	170.00	170.00	120.00	125.00	135.00	135.00	140.00	105.00	110.00	120.00	125.00	125.00	90.00	95.00	100.00	100.00	105.00	75.00	75.00	75.00	75.00	75.00
SOx	lb/MMBtu	0.0700	0.0699	0.0700	0.0692	0.0693	0.0686	0.0696	0.0699	0.0702	0.0695	0.0705	0.0702	0.0703	0.0686	0.0700	0.0678	0.0680	0.0690	0.0707	0.0693	0.0684	0.0705	0.0706	0.0687	0.0707	0.0703	0.0698	0.0705	0.0688	0.0688
SITE CONDITIONS	Units	Case 1	Case 8	Case 2	Case 9	Case 15	Case 3	Case 10	Case 16	Case 21	Case 26	Case 4	Case 11	Case 17	Case 22	Case 27	Case 5	Case 12	Case 18	Case 23	Case 28	Case 6	Case 13	Case 19	Case 24	Case 29	Case 7	Case 14	Case 20	Case 25	Case 30
Elevation	6	R0	Case 8	Case 2 80	Case 9	case 15	Case 3	80	80 K	80 Case 21	Case 26 80	Case 4 80	80 case 11	Case 17 80	case 22	Case 27	Case 5 80	Case 12 80	20 Case 18	Case 23 80	Case 28 80	20 Case 6	80 Case 13	case 19	Case 24 80	Case 29 80	case / 80	80 Case 14	Case 20 80	Case 25 80	Case 30 80
Site Pressure	rt psia	14.658	14.658	14.658	14.658	14.658	80 14.658	14.658	14.658	80 14.658	14.658	14.658	14.658	80 14.658	14.658	14.658	14.658	80 14.658	80 14.658	14.658	80 14.658	14.658	14.658	14.658	14.658	80 14.658	14.658	80 14.658	14.658	14.658	14.658
Exhaust Loss	in H2O	14.658 12.00 @ ISO		14.008	14.038	14.058	14.038	14.058	14.058	14.058	14.038	14.058	14.008	14.038	14.058	14.038	14.038	14:038	14.038	14.008	14.008	14.008	14.038	14.038	14.038	14.008	14.058	14.038	14.008	14.008	14.058
	iii H20		43.00% RH	25.000/ 211	43.000/ 011	60.00W P	25.000/ 011	43.000/ 011	60.000/ P**	57.000/ P**	57 000/ PU	25.006/ 211	42.006/.011	60.006/ 011	57.00% RH	57 00K P**	35 0.00V P**	42.008/ 811	60.00K P**	57.00K 011	57 00W 011	35.00% 011	42.008/ 011	60.00W 200	57 00K 011	57.00% RH	25.00% 011	42.008/ 011	60.00¥ 211	57.00% RH	57.00¥ 011
Humidity		35.00% RH Air-Cooled G		35.00% RH	43.00% RH	00.0075 RH	35.00% KH	43.00% KH	00.0076 RH	э7.00% КН	э7.00% RH	35.00% RH	43.00% RH	00.00% RH	37.00% KH	37.00% RH	33.00% RH	+3.00% KH	00.00% RH	37.00% RH	37.00% RH	35.00% RH	43.00% RH	00.00% RH	37.00% RH	37.00% RH	33.00% RH	≈3.00% RH	00.00% RH	37.00% KH	∋7.00% RH
Application Power Factor (lag)		Air-Cooled G 0.85	enerator									1																			-
Combustion System		DLN Combu	dad																												
compuscion System		DEM COMPR	stof									1										1									

Note: at -10F & RH 57% filter anti-icing will be on, but performance calculation doesn't inlcude impact of filter anti-icing "on"

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Emission information based on GE recommended measurement methods. NOx emissions are corrected to 15% G2 without heat rate correction and are not corrected to ISO reference condition per 4006R 60.335(a)(1)(i). NOX levels shown will be controlled by algorithms within the SPEEDTRONIC control system.

Suffur emissions based on noted "W1%" or "ppmme" noted after Suffur Content values in the fuel. Particulates Note: US-Total PM Emissions (Illerable + condensable) utilize compliance measurements per US-EPA Test Method 58 dated 1990 (Ilterable) and US-EPA Test Method 202 dated 1991 (condensable) measured at GT exhaust flange.

Note: Modified Wobbe Index (MWI) is calculated as LHV/(Spec Gravity\*Temp)^0.5, in BTU/scf/\*R^0.5 Note: SCF is defined at 14.7 psi and 59°F

User: 204002079 Deck Access Level: 0 Job ID: Customer: Simulation Frame: 7F.05-0922T-L3 Date/Time: 4/7/23 11-43 PM GTP Web v5-70-1, 2023

# Table B-2: Natural Gas with 10% Hydrogen Performance Data

		-																								
ESTIMATED PERFORMANCE Case Comments	Units	Case 1	Case 7	Case 2	Case 8	Case 13	Case 3	Case 9	Case 14	Case 18	Case 22	Case 4	Case 10	Case 15	Case 19	Case 23	Case 5	Case 11	Case 16	Case 20	Case 24	Case 6	Case 12	Case 17	Case 21	Case 25
Load Condition	96	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	80.0%	80.0%	80.0%	80.0%	80.0%	70.0%	70.0%	70.0%	70.0%	69.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Inlet Loss	in H2O	4.41	4.39	4.45	4.52	4.36	3.9	4.19	4.43	4.19	4.11	2.97	3.19	3.4	3.34	3.08	2.47	2.57	2.77	2.68	2.5	2.46	2.33	1.96	1.86	1.77
Exhaust Pressure Loss	in H2O	11.54	11.56	11.36	11.61	11.8	9.55	10.42	11.82	11.86	11.99	7.19	7.79	8.81	9.09	8.87	6.03	6.38	7.24	7.4	7.21	5.13	5.15	5.14	5.18	5.15
Ambient Temperature	deg F	107	98	107	98	59	107	98	59	29	-10	107	98	59	29	-10	107	98	59	29	-10	107	98	59	29	-10
Ambient Relative Humidity	%	35	43	35	43	60	35	43	60	57	57	35	43	60	57	57	35	43	60	57	57	35	43	60	57	57
Evap. Cooler Status		On	On	On	On	On	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Evap. Cooler Effectiveness	%	90	90	90	90	90																				
Eavporation rate	pps	5.547		5.577	4.294			4.354						1.731												
Wet Compression		On	On																							
Water Flow	pps	13.08			12.13																					
Filter anti-icing		off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
Fuel Type		User Def Ga		2																						
Fuel HHV	BTU/Ib	23,777	23,777	23,777	23,777	23,777	23,777	23,777	23,777	23,777	23,777	23,777	23,777	23,777	23,777	23,777	23,777	23,777	23,777	23,777	23,777	23,777	23,777	23,777	23,777	23,777
Fuel Temperature	deg F kW	60	60	60 227.404	60	60 241.796	60	60	60	60	60	60	60	60	60	60	60	60	60 167.520	60	60	60	60	60	60	60
Output		242,829 10.031	243,660		229,857		201,469 10.161	214,406	239,315	248,102	250,000	161,175	171,525	191,452	198,482	200,000	141,028	150,084 10.805		173,672	172,500	100,734	107,203	119,657	124,051	125,000 11.909
Heat Rate (HHV) Heat Cons. (HHV)	BTU/kWh MMBTU/hr	2,436	10,002 2,437	10,085 2,293	10,091 2,319	9,867 2,386	10,161 2,047	10,082 2,162	9,893 2,367	9,783 2,427	9,795 2.449	10,598 1,708	10,409 1,785	10,056 1,925	9,946 1,974	10,015 2,003	11,014 1,553	10,805	10,414 1,745	10,304 1,789	10,481 1,808	13,088 1,318	12,603 1,351	11,871 1,420	11,770 1,460	11,909
Auxiliary Losses	kW	6,457	6,457	6,271	6,271	6.271	6,246	6,246	6,246	6,246	7,534	6,246	6,246	6,246	6,246	7,534	6,246	6,246	6,246	6,246	7,534	6,246	6,246	6,246	6,246	7,534
Output - Net	kW	236.372	237,203	221.133	223.586	235.525	195,223	208.160	233.069	241.856	242 466	154.929	165,279	185,206	192,236	192.466	134,782	143.838	161.274	167.426	164.966	94 488	100.957	113.411	117.805	117.466
Heat Rate (HHV) - Net	BTU/kWh	10.312	17.501	10 376	10.281	13,398	195,225	10.380	17.315	10.825	10.275	11.034	103,279	10.137	12,230	192,400	11.535	145,656	101,274	17,350	12 405	94,468 13.969	11.284	10.402	10.041	18,149
Exhaust Flow	x10^3 lb/br	4.164	4,169	4.132	4.176	4.218	3.789	3.957	4.221	4,235	4.286	3,300	3.447	3.695	3.770	3.726	3.010	3.098	3.330	3,379	3.332	2,777	2.781	2,780	2,790	2,782
Exhaust Temperature	deg F	1,215	1,215	1,215	1,215	1,207	1,215	1,215	1,207	1,201	1,168	1,197	1,181	1,143	1,120	1,119	1,215	1,212	1,169	1,152	1,157	1,215	1,215	1,215	1,215	1,215
Exhaust MolWt	lb/lbmol	27.85	27.9	28.06	28.1	28.29	28.15	28.17	28.32	28.38	28.41	28.17	28.19	28.35	28.43	28.44	28.18	28.19	28.35	28.42	28.43	28.21	28.22	28.36	28.43	28.44
Exhaust Energy	MMBTU/hr	1269.6	1277.4	1244.7	1265.3	1297.3	1135.2	1194.2	1296	1321.6	1337.2	969.5	1003.6	1062.8	1084.2	1107.3	899.8	930.5	982.8	1003.7	1026.4	827.1	834.7	856.1	878.1	902.1
EXHAUST ANALYSIS % VOL.		Case 1	Case 7	Case 2	Case 8	Case 13	Case 3	Case 9	Case 14	Case 18	Case 22	Case 4	Case 10	Case 15	Case 19	Case 23	Case 5	Case 11	Case 16	Case 20	Case 24	Case 6	Case 12	Case 17	Case 21	Case 25
Argon		0.85	0.85	0.85	0.86	0.89	0.87	0.87	0.88	0.88	0.88	0.87	0.87	0.88	0.89	0.9	0.87	0.87	0.89	0.9	0.89	0.88	0.87	0.88	0.89	0.89
Nitrogen		70.79	71.13	72.25	72.5	73.89	72.89	72.99	74.09	74.55	74.75	73.02	73.14	74.32	74.83	74.94	73.03	73.11	74.3	74.79	74.91	73.25	73.32	74.37	74.83	74.95
Oxygen		10.54	10.63	11.31	11.36	11.52	11.67	11.6	11.64	11.56	11.64	12.03	12.05	12.28	12.35	12.18	12.05	11.96	12.23	12.26	12.1	12.71	12.56	12.44	12.36	12.22
Carbon Dioxide		4.23	4.24	4.05	4.05	4.16	3.95	4	4.13	4.23	4.22	3.79	3.8	3.84	3.87	3.97	3.78	3.84	3.86	3.91	4.01	3.48	3.57	3.77	3.87	3.96
Water		13.59	13.16	11.54	11.23	9.55	10.62	10.54	9.26	8.78	8.51	10.29	10.14	8.68	8.06	8.02	10.27	10.22	8.72	8.14	8.09	9.68	9.68	8.54	8.05	7.98
EMISSIONS RESULTS (per unit)	Units	Case 1	Case 7	Case 2	Case 8	Case 13	Case 3	Case 9	Case 14	Case 18	Case 22	Case 4	Case 10	Case 15	Case 19	Case 23	Case 5	Case 11	Case 16	Case 20	Case 24	Case 6	Case 12	Case 17	Case 21	Case 25
NOx	ppmvd @ 15% O2	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
NOx AS NO2	lb/hr	257.7	257.6	242.3	245.1	252.4	216.3	228.6	250.3	256.8	258.8	180.4	188.7	203.3	208.7	211.6	164.2	171.4	184.4	189.1	191.0	139.1	142.7	150.0	154.3	157.2
NOx AS NO2	lb/hr lb/MMBtu	257.7 0.1058	0.1057	0.1057	0.1057	252.4 0.1058	0.1057	0.1057	250.3 0.1057		258.8 0.1057	180.4 0.1056	188.7 0.1057		208.7 0.1057	211.6 0.1057	164.2 0.1057	171.4 0.1057	184.4 0.1057	189.1 0.1057	191.0 0.1056	0.1055	0.1056	150.0 0.1056	154.3 0.1057	0.1056
NOx AS NO2 CO	lb/MMBtu ppmvd	0.1058 9	0.1057 9	0.1057 9	0.1057 9	0.1058 9	0.1057 9	0.1057 9	0.1057 9	256.8 0.1058 9	258.8 0.1057 9	180.4 0.1056 9	188.7 0.1057 9	203.3 0.1056 9	208.7 0.1057 9	0.1057 9	0.1057 9	171.4 0.1057 9	184.4 0.1057 9	0.1057 9	0.1056 9	0.1055 9	0.1056 9	0.1056 9	0.1057 9	0.1056 9
NOx AS NO2 CO CO	lb/MMBtu ppmvd lb/hr	0.1058 9 34.2	0.1057 9 34.3	0.1057 9 34.5	0.1057 9 34.9	0.1058 9 35.7	0.1057 9 31.8	0.1057 9 33.3	0.1057 9 35.8	256.8 0.1058 9 36	258.8 0.1057 9 36.5	180.4 0.1056 9 27.8	188.7 0.1057 9 29.1	203.3 0.1056 9 31.5	208.7 0.1057 9 32.3	0.1057 9 31.9	0.1057 9 25.4	171.4 0.1057 9 26.1	184.4 0.1057 9 28.4	0.1057 9 28.9	0.1056 9 28.5	0.1055 9 23.5	0.1056 9 23.6	0.1056 9 23.7	0.1057 9 23.9	0.1056 9 23.8
NOX AS NO2 CO CO VOC	Ib/MMBtu ppmvd Ib/hr ppmvw	0.1058 9 34.2 1.4	0.1057 9 34.3 1.4	0.1057 9 34.5 1.4	0.1057 9 34.9 1.4	0.1058 9 35.7 1.4	0.1057 9 31.8 1.4	0.1057 9 33.3 1.4	0.1057 9 35.8 1.4	256.8 0.1058 9 36 1.4	258.8 0.1057 9 36.5 1.4	180.4 0.1056 9 27.8 1.4	188.7 0.1057 9 29.1 1.4	203.3 0.1056 9 31.5 1.4	208.7 0.1057 9 32.3 1.4	0.1057 9 31.9 1.4	0.1057 9 25.4 1.4	171.4 0.1057 9 26.1 1.4	184.4 0.1057 9 28.4 1.4	0.1057 9 28.9 1.4	0.1056 9 28.5 1.4	0.1055 9 23.5 1.4	0.1056 9 23.6 1.4	0.1056 9 23.7 1.4	0.1057 9 23.9 1.4	0.1056 9 23.8 1.4
NOx AS NO2 CO CO VOC VOC	lb/MMBtu ppmvd lb/hr ppmvw lb/hr	0.1058 9 34.2 1.4 3.53	0.1057 9 34.3 1.4 3.52	0.1057 9 34.5 1.4 3.47	0.1057 9 34.9 1.4 3.51	0.1058 9 35.7 1.4 3.52	0.1057 9 31.8 1.4 3.17	0.1057 9 33.3 1.4 3.31	0.1057 9 35.8 1.4 3.52	256.8 0.1058 9 36 1.4 3.52	258.8 0.1057 9 36.5 1.4 3.56	180.4 0.1056 9 27.8 1.4 2.76	188.7 0.1057 9 29.1 1.4 2.88	203.3 0.1056 9 31.5 1.4 3.07	208.7 0.1057 9 32.3 1.4 3.13	0.1057 9 31.9 1.4 3.09	0.1057 9 25.4 1.4 2.52	171.4 0.1057 9 26.1 1.4 2.59	184.4 0.1057 9 28.4 1.4 2.77	0.1057 9 28.9 1.4 2.8	0.1056 9 28.5 1.4 2.76	0.1055 9 23.5 1.4 2.32	0.1056 9 23.6 1.4 2.32	0.1056 9 23.7 1.4 2.31	0.1057 9 23.9 1.4 2.31	0.1056 9 23.8 1.4 2.31
NDx AS NO2 CO CO VOC Formaldehyde	Ib/MMBtu ppmvd Ib/hr ppmvw Ib/hr ppbvd @ 15% O2	0.1058 9 34.2 1.4 3.53 182	0.1057 9 34.3 1.4 3.52 182	0.1057 9 34.5 1.4 3.47 182	0.1057 9 34.9 1.4 3.51 182	0.1058 9 35.7 1.4 3.52 182	0.1057 9 31.8 1.4 3.17 182	0.1057 9 33.3 1.4 3.31 182	0.1057 9 35.8 1.4 3.52 182	256.8 0.1058 9 36 1.4 3.52 182	258.8 0.1057 9 36.5 1.4 3.56 182	180.4 0.1056 9 27.8 1.4 2.76 182	188.7 0.1057 9 29.1 1.4 2.88 182	203.3 0.1056 9 31.5 1.4 3.07 182	208.7 0.1057 9 32.3 1.4 3.13 182	0.1057 9 31.9 1.4 3.09 182	0.1057 9 25.4 1.4 2.52 182	171.4 0.1057 9 26.1 1.4 2.59 182	184.4 0.1057 9 28.4 1.4 2.77 182	0.1057 9 28.9 1.4 2.8 182	0.1056 9 28.5 1.4 2.76 182	0.1055 9 23.5 1.4 2.32 182	0.1056 9 23.6 1.4 2.32 182	0.1056 9 23.7 1.4 2.31 182	0.1057 9 23.9 1.4 2.31 182	0.1056 9 23.8 1.4 2.31 182
NOx AS NO2 CO CO VOC VOC	lb/MMBtu ppmvd lb/hr ppmvw lb/hr	0.1058 9 34.2 1.4 3.53	0.1057 9 34.3 1.4 3.52	0.1057 9 34.5 1.4 3.47	0.1057 9 34.9 1.4 3.51	0.1058 9 35.7 1.4 3.52	0.1057 9 31.8 1.4 3.17	0.1057 9 33.3 1.4 3.31	0.1057 9 35.8 1.4 3.52	256.8 0.1058 9 36 1.4 3.52	258.8 0.1057 9 36.5 1.4 3.56	180.4 0.1056 9 27.8 1.4 2.76	188.7 0.1057 9 29.1 1.4 2.88	203.3 0.1056 9 31.5 1.4 3.07	208.7 0.1057 9 32.3 1.4 3.13	0.1057 9 31.9 1.4 3.09	0.1057 9 25.4 1.4 2.52	171.4 0.1057 9 26.1 1.4 2.59	184.4 0.1057 9 28.4 1.4 2.77	0.1057 9 28.9 1.4 2.8	0.1056 9 28.5 1.4 2.76	0.1055 9 23.5 1.4 2.32	0.1056 9 23.6 1.4 2.32	0.1056 9 23.7 1.4 2.31	0.1057 9 23.9 1.4 2.31	0.1056 9 23.8 1.4 2.31
NDx AS NO2 CO CO VOC Formaldehyde	Ib/MMBtu ppmvd Ib/hr ppmvw Ib/hr ppbvd @ 15% O2	0.1058 9 34.2 1.4 3.53 182 1.097	0.1057 9 34.3 1.4 3.52 182 0.481	0.1057 9 34.5 1.4 3.47 182 1.033	0.1057 9 34.9 1.4 3.51 182 1.098	0.1058 9 35.7 1.4 3.52 182	0.1057 9 31.8 1.4 3.17 182	0.1057 9 33.3 1.4 3.31 182	0.1057 9 35.8 1.4 3.52 182	256.8 0.1058 9 36 1.4 3.52 182	258.8 0.1057 9 36.5 1.4 3.56 182 0.890	180.4 0.1056 9 27.8 1.4 2.76 182	188.7 0.1057 9 29.1 1.4 2.88 182	203.3 0.1056 9 31.5 1.4 3.07 182 1.075	208.7 0.1057 9 32.3 1.4 3.13 182	0.1057 9 31.9 1.4 3.09 182	0.1057 9 25.4 1.4 2.52 182	171.4 0.1057 9 26.1 1.4 2.59 182	184.4 0.1057 9 28.4 1.4 2.77 182	0.1057 9 28.9 1.4 2.8 182	0.1056 9 28.5 1.4 2.76 182	0.1055 9 23.5 1.4 2.32 182	0.1056 9 23.6 1.4 2.32 182	0.1056 9 23.7 1.4 2.31 182	0.1057 9 23.9 1.4 2.31 182	0.1056 9 23.8 1.4 2.31 182
NOx AS NO2 CO CO VOC VOC Formaldehyde Formaldehyde	Ib/MMBtu ppmvd Ib/hr ppmvw Ib/hr ppbvd @ 15% O2 Ib/h	0.1058 9 34.2 1.4 3.53 182	0.1057 9 34.3 1.4 3.52 182	0.1057 9 34.5 1.4 3.47 182	0.1057 9 34.9 1.4 3.51 182	0.1058 9 35.7 1.4 3.52 182 0.608	0.1057 9 31.8 1.4 3.17 182 0.921 2.78	0.1057 9 33.3 1.4 3.31 182 1.045	0.1057 9 35.8 1.4 3.52 182 0.484	256.8 0.1058 9 36 1.4 3.52 182 0.786	258.8 0.1057 9 36.5 1.4 3.56 182 0.890 3.33	180.4 0.1056 9 27.8 1.4 2.76 182 0.769	188.7 9 29.1 1.4 2.88 182 0.973	203.3 0.1056 9 31.5 1.4 3.07 182	208.7 0.1057 9 32.3 1.4 3.13 182 0.640	0.1057 9 31.9 1.4 3.09 182 0.799	0.1057 9 25.4 1.4 2.52 182 0.699	171.4 0.1057 9 26.1 1.4 2.59 182 0.803	184.4 0.1057 9 28.4 1.4 2.77 182 1.066	0.1057 9 28.9 1.4 2.8 182 0.480	0.1056 9 28.5 1.4 2.76 182 0.658	0.1055 9 23.5 1.4 2.32 182 0.593	0.1056 9 23.6 1.4 2.32 182 0.730	0.1056 9 23.7 1.4 2.31 182 0.868	0.1057 9 23.9 1.4 2.31 182 1.094 1.98	0.1056 9 23.8 1.4 2.31 182 0.491 2.02
NOx AS NO2 CO CO VOC VOC Formaldehyde Formaldehyde SOx mass flow rate (as SO2)	Ib/MMBtu ppmvd Ib/hr ppmvw Ib/hr ppbvd @ 15% O2 Ib/h Ib/hr	0.1058 9 34.2 1.4 3.53 182 1.097 3.31	0.1057 9 34.3 1.4 3.52 182 0.481 3.31	0.1057 9 34.5 1.4 3.47 182 1.033 3.12	0.1057 9 34.9 1.4 3.51 182 1.098 3.15	0.1058 9 35.7 1.4 3.52 182 0.608 3.24	0.1057 9 31.8 1.4 3.17 182 0.921	0.1057 9 33.3 1.4 3.31 182 1.045 2.94	0.1057 9 35.8 1.4 3.52 182 0.484 3.22	256.8 9 36 1.4 3.52 182 0.786 3.3	258.8 0.1057 9 36.5 1.4 3.56 182 0.890	180.4 0.1056 9 27.8 1.4 2.76 182 0.769 2.32	188.7 0.1057 9 29.1 1.4 2.88 182 0.973 2.43 0.186	203.3 0.1056 9 31.5 1.4 3.07 182 1.075 2.62	208.7 9 32.3 1.4 3.13 182 0.640 2.68	0.1057 9 31.9 1.4 3.09 182 0.799 2.72	0.1057 9 25.4 1.4 2.52 182 0.699 2.11	171.4 0.1057 9 26.1 1.4 2.59 182 0.803 2.2	184.4 0.1057 9 28.4 1.4 2.77 182 1.066 2.37	0.1057 9 28.9 1.4 2.8 182 0.480 2.43 0.186	0.1056 9 28.5 1.4 2.76 182 0.658 2.46	0.1055 9 23.5 1.4 2.32 182 0.593 1.79	0.1056 9 23.6 1.4 2.32 182 0.730 1.84	0.1056 9 23.7 1.4 2.31 182 0.868 1.93	0.1057 9 23.9 1.4 2.31 182 1.094	0.1056 9 23.8 1.4 2.31 182 0.491
NOX AS NO2 CO CO VOC Formaldehyde Formaldehyde SOx mass flow rate (as SO2) Sultur Mat sa H2SO4	Ib/MMBtu ppmvd Ib/hr ppmvw Ib/hr ppbvd @ 15% O2 Ib/h Ib/hr	0.1058 9 34.2 1.4 3.53 182 1.097 3.31 0.254	0.1057 9 34.3 1.4 3.52 182 0.481 3.31 0.254	0.1057 9 34.5 1.4 3.47 182 1.033 3.12 0.239	0.1057 9 34.9 1.4 3.51 182 1.098 3.15 0.241	0.1058 9 35.7 1.4 3.52 182 0.608 3.24 0.248	0.1057 9 31.8 1.4 3.17 182 0.921 2.78 0.213	0.1057 9 33.3 1.4 3.31 182 1.045 2.94 0.225	0.1057 9 35.8 1.4 3.52 182 0.484 3.22 0.246	256.8 9 36 1.4 3.52 182 0.786 3.3 0.253	258.8 0.1057 9 36.5 1.4 3.56 182 0.890 3.33 0.255	180.4 0.1056 9 27.8 1.4 2.76 182 0.769 2.32 0.178	188.7 9 29.1 1.4 2.88 182 0.973 2.43	203.3 0.1056 9 31.5 1.4 3.07 182 1.075 2.62 0.2	208.7 9 32.3 1.4 3.13 182 0.640 2.68 0.205	0.1057 9 31.9 1.4 3.09 182 0.799 2.72 0.208	0.1057 9 25.4 1.4 2.52 182 0.699 2.11 0.162	171.4 9 26.1 1.4 2.59 182 0.803 2.2 0.169	184.4 0.1057 9 28.4 1.4 2.77 182 1.066 2.37 0.182	0.1057 9 28.9 1.4 2.8 182 0.480 2.43	0.1056 9 28.5 1.4 2.76 182 0.658 2.46 0.188	0.1055 9 23.5 1.4 2.32 182 0.593 1.79 0.137	0.1056 9 23.6 1.4 2.32 182 0.730 1.84 0.141	0.1056 9 23.7 1.4 2.31 182 0.868 1.93 0.148	0.1057 9 23.9 1.4 2.31 182 1.094 1.98 0.152	0.1056 9 23.8 1.4 2.31 182 0.491 2.02 0.155
NOX AS NO2 CO CO VOC VOCaldehyde Formaldehyde SOX mass flow rate (as SO2) Sufur Mat as 1/2SO4 Filterable Particulates	Ib/MMBtu ppmvd Ib/hr ppmvw Ib/hr ppbvd @ 15% O2 Ib/h Ib/hr Ib/hr Ib/hr Ib/h	0.1058 9 34.2 1.4 3.53 182 1.097 3.31 0.254 3.4	0.1057 9 34.3 1.4 3.52 182 0.481 3.31 0.254 3.4	0.1057 9 34.5 1.4 3.47 182 1.033 3.12 0.239 3.4	0.1057 9 34.9 1.4 3.51 182 1.098 3.15 0.241 3.4	0.1058 9 35.7 1.4 3.52 182 0.608 3.24 0.248 3.4	0.1057 9 31.8 1.4 3.17 182 0.921 2.78 0.213 3.4	0.1057 9 33.3 1.4 3.31 182 1.045 2.94 0.225 3.4	0.1057 9 35.8 1.4 3.52 182 0.484 3.22 0.246 3.4	256.8 9 36 1.4 3.52 182 0.786 3.3 0.253 3.4	258.8 0.1057 9 36.5 1.4 3.56 182 0.890 3.33 0.255 3.4	180.4 <b>0.1056</b> 9 27.8 1.4 2.76 182 0.769 2.32 0.178 3.4	188.7 9 29.1 1.4 2.88 182 0.973 2.43 0.186 3.4	203.3 0.1056 9 31.5 1.4 3.07 182 1.075 2.62 0.2 3.4	208.7 9 32.3 1.4 3.13 182 0.640 2.68 0.205 3.4	0.1057 9 31.9 1.4 3.09 182 0.799 2.72 0.208 3.4	0.1057 9 25.4 1.4 2.52 182 0.699 2.11 0.162 3.4	171.4 0.1057 9 26.1 1.4 2.59 182 0.803 2.2 0.169 3.4	184.4 0.1057 9 28.4 1.4 2.77 182 1.066 2.37 0.182 3.4	0.1057 9 28.9 1.4 2.8 182 0.480 2.43 0.186 3.4	0.1056 9 28.5 1.4 2.76 182 0.658 2.46 0.188 3.4	0.1055 9 23.5 1.4 2.32 182 0.593 1.79 0.137 3.4	0.1056 9 23.6 1.4 2.32 182 0.730 1.84 0.141 3.4	0.1055 9 23.7 1.4 2.31 182 0.868 1.93 0.148 3.4	0.1057 9 23.9 1.4 2.31 182 1.094 1.98 0.152 3.4	0.1056 9 23.8 1.4 2.31 182 0.491 2.02 0.155 3.4
NO: AS NO2 CO CO VOC Formaldehyde Formaldehyde SO: mass flow rate (as SO2) Sufur Mist as H2SO4 Filterable Particulates Todal Particulates PM10/2.5	Ib/MMBtu ppmvd Ib/hr ppmvw Ib/hr ppbvd @ 15% O2 Ib/h Ib/hr Ib/h Ib/h Ib/h	0.1058 9 34.2 1.4 3.53 182 1.097 3.31 0.254 3.4 6.9 6.9	0.1057 9 34.3 1.4 3.52 182 0.481 3.31 0.254 3.4 6.9 6.9	0.1057 9 34.5 1.4 3.47 182 1.033 3.12 0.239 3.4 6.9 6.9	0.1057 9 34.9 1.4 3.51 1.098 3.15 0.241 3.4 6.9 6.9	0.1058 9 35.7 1.4 3.52 182 0.608 3.24 0.248 3.4 6.9 6.9	0.1057 9 31.8 1.4 3.17 182 0.921 2.78 0.213 3.4 6.9 6.9	0.1057 9 33.3 1.4 3.31 1.82 1.045 2.94 0.225 3.4 6.9 6.9	0.1057 9 35.8 1.4 3.52 182 0.484 3.22 0.246 3.4 6.9 6.9	256.8 9 36 1.4 3.52 182 0.786 3.3 0.253 3.4 6.9	258.8 0.1057 9 36.5 1.4 3.56 182 0.890 3.33 0.255 3.4 6.9 6.9	180.4 0.1056 9 27.8 1.4 2.76 182 0.769 2.32 0.178 3.4 6.8 6.8	188.7 9 29.1 1.4 2.88 182 0.973 2.43 0.186 3.4 6.9 6.9	203.3 9 31.5 1.4 3.07 182 1.075 2.62 0.2 3.4 6.9 6.9	208.7 9 32.3 1.4 3.13 182 0.640 2.68 0.205 3.4 6.9 6.9	0.1057 9 31.9 1.4 3.09 182 0.799 2.72 0.208 3.4 6.9 6.9	0.1057 9 25.4 1.4 2.52 182 0.699 2.11 0.162 3.4 6.8 6.8	171.4 0.1057 9 26.1 1.4 2.59 182 0.803 2.2 0.169 3.4 6.8 6.8	184.4 0.1057 9 28.4 1.4 2.77 182 1.066 2.37 0.182 3.4 6.9 6.9	0.1057 9 28.9 1.4 2.8 182 0.480 2.43 0.186 3.4 6.9 6.9	0.1056 9 28.5 1.4 2.76 182 0.658 2.46 0.188 3.4 6.9 6.9	0.1055 9 23.5 1.4 2.32 0.593 1.79 0.137 3.4 6.8 6.8	0.1056 9 23.6 1.4 2.32 182 0.730 1.84 0.141 3.4 6.8 6.8	0.1056 9 23.7 1.4 2.31 182 0.868 1.93 0.148 3.4 6.8 6.8	0.1057 9 23.9 1.4 2.31 182 1.094 1.98 0.152 3.4 6.8 6.8	0.1056 9 23.8 1.4 2.31 182 0.491 2.02 0.155 3.4 6.8 6.8
NOX AS NO2 CO CO VOC VOC Formaldehyde Formaldehyde SOX mass flow rate (as SO2) Sufur Mat as H2SO4 Filterable Particulates Total Particulates PMI0/2.5 SOX mass flow rate (as SO2)	Ib/MMBtu ppmvd Ib/hr pptvd @ 15% O2 Ib/h Ib/hr Ib/hr Ib/h Ib/h Ib/h Ib/h	0.1058 9 34.2 1.4 3.53 182 1.097 3.31 0.254 3.4 6.9 6.9 8.03	0.1057 9 34.3 1.4 3.52 182 0.481 3.31 0.254 3.4 6.9 6.9 8.03	0.1057 9 34.5 1.4 3.47 182 1.033 3.12 0.239 3.4 6.9 6.9 7.56	0.1057 9 34.9 1.4 3.51 182 1.098 3.15 0.241 3.4 6.9 6.9 7.64	0.1058 9 35.7 1.4 3.52 182 0.608 3.24 0.248 3.4 6.9 6.9 7.86	0.1057 9 31.8 1.4 3.17 182 0.921 2.78 0.213 3.4 6.9 6.9 6.75	0.1057 9 33.3 1.4 3.31 182 1.045 2.94 0.225 3.4 6.9 6.9 7.12	0.1057 9 35.8 1.4 3.52 182 0.484 3.22 0.246 3.4 6.9 6.9 7.8	256.8 9 36 1.4 3.52 1.82 0.786 3.3 0.786 3.3 0.253 3.4 6.9 6.9 8	258.8 0.1057 9 36.55 1.4 3.56 182 0.890 3.33 0.255 3.4 6.9 6.9 8.07	180.4 0.1056 9 27.8 1.4 2.76 182 0.769 2.32 0.178 3.4 6.8 6.8 5.63	188.7 9 29.1 1.4 2.88 182 0.973 2.43 0.186 3.4 6.9 6.9 5.88	203.3 0.1056 9 31.5 1.4 3.07 182 1.075 2.62 0.2 3.4 6.9 6.9 6.35	208.7 9 32.3 1.4 3.13 182 0.640 2.68 0.205 3.4 6.9 6.9 6.51	0.1057 9 31.9 1.4 3.09 182 0.799 2.72 0.208 3.4 6.9 6.9 6.6	0.1057 9 25.4 1.4 2.52 182 0.699 2.11 0.162 3.4 6.8 6.8 5.12	171.4 0.1057 9 26.1 1.4 2.59 182 0.803 2.2 0.169 3.4 6.8 6.8 5.34	184.4 0.1057 9 28.4 1.4 2.77 1.82 1.066 2.37 0.182 3.4 6.9 6.9 5.75	0.1057 9 28.9 1.4 2.8 182 0.480 2.43 0.186 3.4 6.9 6.9 5.9	0.1056 9 28.5 1.4 2.76 182 0.658 2.46 0.188 3.4 6.9 6.9 5.96	0.1055 9 23.5 1.4 2.32 182 0.593 1.79 0.137 3.4 6.8 6.8 4.35	0.1056 9 23.6 1.4 2.32 182 0.730 1.84 0.141 3.4 6.8 6.8 6.8 4.45	0.1056 9 23.7 1.4 2.31 182 0.868 1.93 0.148 3.4 6.8 6.8 4.68	0.1057 9 23.9 1.4 2.31 182 1.094 1.98 0.152 3.4 6.8 6.8 4.81	0.1056 9 23.8 1.4 2.31 182 0.491 2.02 0.155 3.4 6.8 6.8 6.8 4.91
NOX AS NO2 CO CO VOC Formaldehyde Formaldehyde SOX mass flow rate (as SO2) Sufur Mat as H2SO4 Filterable Particulates PM10/2.5 SOX mass flow rate (as SO2) Sufur Mat as H2SO4	b/MMMBu ppmvd ib/hr ppmvw ib/hr ppbvd @ 15% 02 ib/h ib/hr ib/hr ib/h ib/h ib/h ib/h ib/hr ib/hr ib/hr	0.1058 9 34.2 1.4 3.53 182 1.097 3.31 0.254 3.4 6.9 6.9 8.03 0.615	0.1057 9 34.3 1.4 3.52 182 0.481 3.31 0.254 3.4 6.9 6.9 6.9 8.03 0.615	0.1057 9 34.5 1.4 3.47 182 1.033 3.12 0.239 3.4 6.9 6.9 6.9 7.56 0.579	0.1057 9 34.9 1.4 3.51 182 1.098 3.15 0.241 3.4 6.9 6.9 7.64 0.585	0.1058 9 35.7 1.4 3.52 182 0.608 3.24 0.248 3.4 6.9 6.9 6.9 7.86 0.602	0.1057 9 31.8 1.4 3.17 182 0.921 2.78 0.213 3.4 6.9 6.9 6.9 6.75 0.517	0.1057 9 33.3 1.4 3.31 182 1.045 2.94 0.225 3.4 6.9 6.9 7.12 0.545	0.1057 9 35.8 1.4 3.52 182 0.484 3.22 0.246 3.4 6.9 6.9 6.9 7.8 0.597	256.8 0.1058 9 36 1.4 3.52 1.82 0.786 3.3 0.253 3.4 6.9 6.9 8 0.612	258.8 0.1057 9 36.5 1.4 3.56 1.82 0.890 3.33 0.255 3.4 6.9 6.9 8.07 0.618	180.4 0.1056 9 27.8 1.4 2.76 182 0.769 2.32 0.176 3.4 6.8 6.8 5.63 0.431	188.7 0.1057 9 29.1 1.4 2.88 182 0.973 2.43 0.186 3.4 6.9 6.9 5.88 0.451	203.3 0.1056 9 31.5 1.4 3.07 182 1.075 2.62 0.2 3.4 6.9 6.9 6.9 6.35 0.486	208.7 0.1057 9 32.3 1.4 3.13 182 0.640 2.68 0.205 3.4 6.9 6.9 6.51 0.498	0.1057 9 31.9 1.4 3.09 182 0.799 2.72 0.208 3.4 6.9 6.9 6.9 6.6 0.505	0.1057 9 25.4 1.4 2.52 182 0.699 2.11 0.162 3.4 6.8 6.8 6.8 5.12 0.392	171.4 0.1057 9 26.1 1.4 2.59 182 0.803 2.2 0.169 3.4 6.8 6.8 5.34 0.409	184.4 0.1057 9 28.4 1.4 2.77 182 1.066 2.37 0.182 3.4 6.9 6.9 5.75 0.44	0.1057 9 28.9 1.4 2.8 182 0.480 2.43 0.186 3.4 6.9 6.9 5.9 0.452	0.1056 9 28.5 1.4 2.76 182 0.658 2.46 0.188 3.4 6.9 6.9 5.96 0.456	0.1055 9 23.5 1.4 2.32 182 0.593 1.79 0.137 3.4 6.8 6.8 6.8 4.35 0.333	0.1056 9 23.6 1.4 2.32 182 0.730 1.84 0.141 3.4 6.8 6.8 6.8 4.45 0.341	0.1056 9 23.7 1.4 2.31 182 0.868 1.93 0.148 3.4 6.8 6.8 6.8 4.68 0.358	0.1057 9 23.9 1.4 2.31 182 1.094 1.98 0.152 3.4 6.8 6.8 6.8 4.81 0.368	0.1056 9 23.8 1.4 2.31 182 0.491 2.02 0.155 3.4 6.8 6.8 6.8 4.91 0.376
NOX AS NO2 CO CO VOC VOC Formaldehyde Formaldehyde SOx mass flow rate (as SO2) Sufur Mist as H2SO4 Filterable Particulates PM10/2.5 SOx mass flow rate (as SO2) Sufur Mist as H2SO4 Filterable Particulates	b/NMMBtu pomvd lb/hr pomvw bb/hr bb/hr lb/hr lb/h lb/h lb/h lb/h lb/hr lb/hr lb/hr lb/hr lb/hr	0.1058 9 34.2 1.4 3.53 182 1.097 3.31 0.254 3.4 6.9 6.9 6.9 8.03 0.615 3.4	0.1057 9 34.3 1.4 3.52 182 0.481 3.31 0.254 3.4 6.9 6.9 8.03 0.615 3.4	0.1057 9 34.5 1.4 3.47 182 1.033 3.12 0.239 3.4 6.9 6.9 7.56 0.579 3.4	0.1057 9 34.9 1.4 3.51 182 1.098 3.15 0.241 3.4 6.9 7.64 0.585 3.4	0.1058 9 35.7 1.4 3.52 182 0.608 3.24 0.248 3.4 6.9 7.86 0.602 3.4	0.1057 9 31.8 1.4 3.17 182 0.921 2.78 0.213 3.4 6.9 6.9 6.9 6.75 0.517 3.4	0.1057 9 33.3 1.4 3.31 182 1.045 2.94 0.225 3.4 6.9 6.9 6.9 7.12 0.545 3.4	0.1057 9 35.8 1.4 3.52 182 0.484 3.22 0.246 3.4 6.9 6.9 7.8 0.597 3.4	256.8 0.1058 9 36 1.4 3.52 0.786 3.3 0.253 3.4 6.9 8 0.612 3.4	258.8 0.1057 9 36.5 1.4 3.56 1.82 0.890 3.33 0.255 3.4 6.9 6.9 8.07 0.618 3.4	180.4 0.1056 9 27.8 1.4 2.76 182 0.769 2.32 0.178 3.4 6.8 5.63 0.431 3.4	188.7 0.1057 9 29.1 1.4 2.82 0.973 2.43 0.186 3.4 6.9 5.88 0.451 3.4	203.3 0.1056 9 31.5 1.4 3.075 2.62 0.2 3.4 6.9 6.35 0.486 3.4	208.7 0.1057 9 32.3 1.4 3.13 182 0.640 2.68 0.205 3.4 6.9 6.51 0.498 3.4	0.1057 9 31.9 1.4 3.09 182 0.799 2.72 0.208 3.4 6.9 6.9 6.9 6.6 0.505 3.4	0.1057 9 25.4 1.4 2.52 182 0.699 2.11 0.162 3.4 6.8 6.8 5.12	171.4 0.1057 9 26.1 1.4 2.59 182 0.803 2.2 0.169 3.4 6.8 6.8 5.34	184.4 0.1057 9 28.4 1.4 2.77 1.82 1.066 2.37 0.182 3.4 6.9 5.75 0.44 3.4	0.1057 9 28.9 1.4 2.8 182 0.480 2.43 0.186 3.4 6.9 6.9 5.9 0.452 3.4	0.1056 9 28.5 1.4 2.76 182 0.658 2.46 0.188 3.4 6.9 6.9 5.96 0.456 3.4	0.1055 9 23.5 1.4 2.32 182 0.593 1.79 0.137 3.4 6.8 6.8 4.35	0.1056 9 23.6 1.4 2.32 182 0.730 1.84 0.141 3.4 6.8 6.8 6.8 4.45	0.1056 9 23.7 1.4 2.31 182 0.868 1.93 0.148 3.4 6.8 6.8 4.68	0.1057 9 23.9 1.4 2.31 182 1.094 1.98 0.152 3.4 6.8 6.8 4.81	0.1056 9 23.8 1.4 2.31 182 0.491 2.02 0.155 3.4 6.8 6.8 6.8 4.91 0.376 3.4
NOV AS NO2 CO CO VOC Formaldehyde Formaldehyde SOX mass flow rate (as SO2) Sufur Mat as H2SOA Filterable Particulates PM10/2.5 SOx mass flow rate (as SO2) Sufur Mat as H2SOA Filterable Particulates Total Particulates	b/MMBtu ppmvd ib/hr ppmvv ib/hr b/hr ib/hr ib/h b/h b/h b/h ib/h b/h b/hr ib/hr ib/hr ib/hr ib/hr	0.1058 9 34.2 1.4 3.53 182 1.097 3.31 0.254 3.4 6.9 6.9 8.03 0.615 3.4 7.2	0.1057 9 34.3 1.4 3.52 182 0.481 3.31 0.254 3.4 6.9 6.9 8.03 0.615 3.4 7.2	0.1057 9 34.5 1.4 3.47 182 1.033 3.12 0.239 3.4 6.9 6.9 7.56 0.579 3.4 7.2	0.1057 9 34.9 1.4 3.51 182 1.098 3.15 0.241 3.4 6.9 6.9 7.64 0.585 3.4 7.2	0.1058 9 35.7 1.4 3.52 182 0.608 3.24 0.608 3.24 0.248 3.4 6.9 6.9 7.86 0.602 3.4 7.2	0.1057 9 31.8 1.4 3.17 182 0.921 2.78 0.921 2.78 0.921 3.4 6.9 6.9 6.75 0.517 3.4 7.1	0.1057 9 33.3 1.4 3.31 182 1.045 2.94 0.225 3.4 6.9 6.9 7.12 0.545 3.4 7.2	0.1057 9 35.8 1.4 3.52 182 0.484 3.22 0.484 3.22 0.246 3.4 6.9 6.9 7.8 0.997 3.4 7.2	256.8 0.1058 9 36 1.4 3.52 1.82 0.786 3.3 0.253 3.4 6.9 6.9 8 0.612 3.4 7.2	258.8 0.1057 9 36.5 1.4 3.56 1.82 0.890 3.33 0.255 3.4 6.9 8.07 0.618 3.4 7.2	180.4 0.1056 9 27.8 1.4 2.76 0.769 2.32 0.178 3.4 6.8 6.8 5.63 0.431 3.4 7.1	188.7 0.1057 9 29.1 1.4 2.88 182 0.973 2.43 0.186 3.4 6.9 6.9 5.88 0.451 3.4 7.1	203.3 0.1056 9 31.5 1.4 3.07 1.075 2.62 0.2 3.4 6.9 6.9 6.35 0.486 3.4 7.1	208.7 0.1057 9 32.3 1.4 3.13 182 0.640 2.68 0.205 3.4 6.9 6.9 6.51 0.498 3.4 7.1	0.1057 9 31.9 1.4 3.09 182 0.799 2.72 0.208 3.4 6.9 6.9 6.9 6.6 0.505 3.4 7.1	0.1057 9 25.4 1.4 2.52 182 0.699 2.11 0.162 3.4 6.8 6.8 6.8 5.12 0.392	171.4 0.1057 9 26.1 1.4 2.59 182 0.803 2.2 0.169 3.4 6.8 6.8 5.34 0.409 3.4 7	184.4 0.1057 9 28.4 1.4 2.77 182 1.066 2.37 0.182 3.4 6.9 6.9 5.75 0.44 3.4 3.4 7.1	0.1057 9 28.9 1.4 2.8 182 0.480 2.43 0.186 3.4 6.9 6.9 5.9 0.452 3.4 7.1	0.1056 9 28.5 1.4 2.76 182 0.658 2.46 0.188 3.4 6.9 6.9 5.96 0.456 3.4 7.1	0.1055 9 23.5 1.4 2.32 182 0.593 1.79 0.137 3.4 6.8 6.8 6.8 4.35 0.333 3.4 7	0.1056 9 23.6 1.4 2.32 182 0.730 1.84 0.141 3.4 6.8 6.8 6.8 4.45 0.341 3.4 7	0.1056 9 23.7 1.4 2.31 182 0.868 1.93 0.148 3.4 6.8 6.8 6.8 4.68 0.358	0.1057 9 23.9 1.4 2.31 1.82 1.094 1.98 0.152 3.4 6.8 6.8 6.8 4.81 0.368 3.4 7	0.1056 9 23.8 1.4 2.31 182 0.491 2.02 0.155 3.4 6.8 6.8 6.8 4.91 0.376 3.4 7
NOX AS NO2 CO CO VOC VOC Formaldehyde Formaldehyde SOx mass flow rate (as SO2) Sufur Mist as H2SO4 Filterable Particulates PM10/2.5 SOx mass flow rate (as SO2) Sufur Mist as H2SO4 Filterable Particulates	b/NMMBtu pomvd lb/hr pomvw bb/hr bb/hr lb/hr lb/h lb/h lb/h lb/h lb/hr lb/hr lb/hr lb/hr lb/hr	0.1058 9 34.2 1.4 3.53 182 1.097 3.31 0.254 3.4 6.9 6.9 6.9 8.03 0.615 3.4	0.1057 9 34.3 1.4 3.52 182 0.481 3.31 0.254 3.4 6.9 6.9 8.03 0.615 3.4	0.1057 9 34.5 1.4 3.47 182 1.033 3.12 0.239 3.4 6.9 6.9 7.56 0.579 3.4	0.1057 9 34.9 1.4 3.51 182 1.098 3.15 0.241 3.4 6.9 7.64 0.585 3.4	0.1058 9 35.7 1.4 3.52 182 0.608 3.24 0.248 3.4 6.9 7.86 0.602 3.4	0.1057 9 31.8 1.4 3.17 182 0.921 2.78 0.213 3.4 6.9 6.9 6.9 6.75 0.517 3.4	0.1057 9 33.3 1.4 3.31 182 1.045 2.94 0.225 3.4 6.9 6.9 6.9 7.12 0.545 3.4	0.1057 9 35.8 1.4 3.52 182 0.484 3.22 0.246 3.4 6.9 6.9 7.8 0.597 3.4	256.8 0.1058 9 36 1.4 3.52 0.786 3.3 0.253 3.4 6.9 8 0.612 3.4	258.8 0.1057 9 36.5 1.4 3.56 1.82 0.890 3.33 0.255 3.4 6.9 6.9 8.07 0.618 3.4	180.4 0.1056 9 27.8 1.4 2.76 182 0.769 2.32 0.178 3.4 6.8 5.63 0.431 3.4	188.7 0.1057 9 29.1 1.4 2.82 0.973 2.43 0.186 3.4 6.9 5.88 0.451 3.4	203.3 0.1056 9 31.5 1.4 3.075 2.62 0.2 3.4 6.9 6.35 0.486 3.4	208.7 0.1057 9 32.3 1.4 3.13 182 0.640 2.68 0.205 3.4 6.9 6.51 0.498 3.4	0.1057 9 31.9 1.4 3.09 182 0.799 2.72 0.208 3.4 6.9 6.9 6.9 6.6 0.505 3.4	0.1057 9 25.4 1.4 2.52 182 0.699 2.11 0.162 3.4 6.8 6.8 6.8 5.12 0.392	171.4 0.1057 9 26.1 1.4 2.59 182 0.803 2.2 0.169 3.4 6.8 6.8 5.34 0.409	184.4 0.1057 9 28.4 1.4 2.77 1.82 1.066 2.37 0.182 3.4 6.9 5.75 0.44 3.4	0.1057 9 28.9 1.4 2.8 182 0.480 2.43 0.186 3.4 6.9 6.9 5.9 0.452 3.4	0.1056 9 28.5 1.4 2.76 182 0.658 2.46 0.188 3.4 6.9 6.9 5.96 0.456 3.4	0.1055 9 23.5 1.4 2.32 182 0.593 1.79 0.137 3.4 6.8 6.8 6.8 4.35 0.333	0.1056 9 23.6 1.4 2.32 182 0.730 1.84 0.141 3.4 6.8 6.8 6.8 4.45 0.341	0.1056 9 23.7 1.4 2.31 182 0.868 1.93 0.148 3.4 6.8 6.8 6.8 4.68 0.358	0.1057 9 23.9 1.4 2.31 182 1.094 1.98 0.152 3.4 6.8 6.8 6.8 4.81 0.368	0.1056 9 23.8 1.4 2.31 182 0.491 2.02 0.155 3.4 6.8 6.8 6.8 4.91 0.376 3.4
NOV AS NO2 CO CO VOC Formaldehyde Formaldehyde SOX mass flow rate (as SO2) Sufur Mat as H2SOA Filterable Particulates PM10/2.5 SOx mass flow rate (as SO2) Sufur Mat as H2SOA Filterable Particulates Total Particulates	b/MMBbu ppmvd lb/hr ppmvv lb/hr b/hr lb/hr lb/h lb/h lb/h lb/h lb/h lb/hr lb/hr lb/hr lb/hr lb/hr lb/hr lb/h lb/h	0.1058 9 34.2 1.4 3.53 182 1.097 3.31 0.254 3.4 6.9 6.9 8.03 0.615 3.4 7.2	0.1057 9 34.3 1.4 3.52 182 0.481 3.31 0.254 3.4 6.9 6.9 8.03 0.615 3.4 7.2	0.1057 9 34.5 1.4 3.47 182 1.033 3.12 0.239 3.4 6.9 6.9 7.56 0.579 3.4 7.2	0.1057 9 34.9 1.4 3.51 182 1.098 3.15 0.241 3.4 6.9 6.9 7.64 0.585 3.4 7.2	0.1058 9 35.7 1.4 3.52 182 0.608 3.24 0.608 3.24 0.248 3.4 6.9 6.9 7.86 0.602 3.4 7.2	0.1057 9 31.8 1.4 3.17 182 0.921 2.78 0.921 2.78 0.921 3.4 6.9 6.9 6.75 0.517 3.4 7.1	0.1057 9 33.3 1.4 3.31 182 1.045 2.94 0.225 3.4 6.9 6.9 7.12 0.545 3.4 7.2	0.1057 9 35.8 1.4 3.52 182 0.484 3.22 0.484 3.22 0.484 3.4 6.9 6.9 7.8 0.997 3.4 7.2	256.8 0.1058 9 36 1.4 3.52 1.82 0.786 3.3 0.253 3.4 6.9 6.9 8 0.612 3.4 7.2	258.8 0.1057 9 36.5 1.4 3.56 1.82 0.890 3.33 0.255 3.4 6.9 8.07 0.618 3.4 7.2	180.4 0.1056 9 27.8 1.4 2.76 0.769 2.32 0.178 3.4 6.8 6.8 5.63 0.431 3.4 7.1	188.7 0.1057 9 29.1 1.4 2.88 182 0.973 2.43 0.186 3.4 6.9 6.9 5.88 0.451 3.4 7.1	203.3 0.1056 9 31.5 1.4 3.07 1.075 2.62 0.2 3.4 6.9 6.9 6.35 0.486 3.4 7.1	208.7 0.1057 9 32.3 1.4 3.13 182 0.640 2.68 0.205 3.4 6.9 6.9 6.51 0.498 3.4 7.1	0.1057 9 31.9 1.4 3.09 182 0.799 2.72 0.208 3.4 6.9 6.9 6.9 6.6 0.505 3.4 7.1	0.1057 9 25.4 1.4 2.52 182 0.699 2.11 0.162 3.4 6.8 6.8 6.8 5.12 0.392	171.4 0.1057 9 26.1 1.4 2.59 182 0.803 2.2 0.169 3.4 6.8 6.8 5.34 0.409 3.4 7	184.4 0.1057 9 28.4 1.4 2.77 182 1.066 2.37 0.182 3.4 6.9 6.9 5.75 0.44 3.4 3.4 7.1	0.1057 9 28.9 1.4 2.8 182 0.480 2.43 0.186 3.4 6.9 6.9 5.9 0.452 3.4 7.1	0.1056 9 28.5 1.4 2.76 182 0.658 2.46 0.188 3.4 6.9 6.9 5.96 0.456 3.4 7.1	0.1055 9 23.5 1.4 2.32 182 0.593 1.79 0.137 3.4 6.8 6.8 6.8 4.35 0.333 3.4 7	0.1056 9 23.6 1.4 2.32 182 0.730 1.84 0.141 3.4 6.8 6.8 4.45 0.341 3.4 7	0.1056 9 23.7 1.4 2.31 182 0.868 1.93 0.148 3.4 6.8 6.8 6.8 4.68 0.358	0.1057 9 23.9 1.4 2.31 1.82 1.094 1.98 0.152 3.4 6.8 6.8 6.8 4.81 0.368 3.4 7	0.1056 9 23.8 1.4 2.31 182 0.491 2.02 0.155 3.4 6.8 6.8 6.8 4.91 0.376 3.4 7
NOV AS NO2 CO CO VOC VOC Formaldehyde Formaldehyde SOx mass flow rate (as SO2) Sufur Met as H2SO4 Filterable Particulates PM10/2.5 SOx mass flow rate (as SO2) Sufur Met as H2SO4 Filterable Particulates Total Particulates PM10/2.5	b/MMBbu ppmvd lb/hr ppmvv lb/hr b/hr lb/hr lb/h lb/h lb/h lb/h lb/h lb/hr lb/hr lb/hr lb/hr lb/hr lb/hr lb/h lb/h	0.1058 9 34.2 1.4 3.53 182 1.097 3.31 0.254 3.4 6.9 6.9 8.03 0.615 3.4 7.2	0.1057 9 34.3 1.4 3.52 182 0.481 3.31 0.254 3.4 6.9 6.9 8.03 0.615 3.4 7.2	0.1057 9 34.5 1.4 3.47 182 1.033 3.12 0.239 3.4 6.9 6.9 7.56 0.579 3.4 7.2	0.1057 9 34.9 1.4 3.51 182 1.098 3.15 0.241 3.4 6.9 6.9 7.64 0.585 3.4 7.2	0.1058 9 35.7 1.4 3.52 182 0.608 3.24 0.608 3.24 0.248 3.4 6.9 6.9 7.86 0.602 3.4 7.2	0.1057 9 31.8 1.4 3.17 182 0.921 2.78 0.921 2.78 0.921 3.4 6.9 6.9 6.75 0.517 3.4 7.1	0.1057 9 33.3 1.4 3.31 182 1.045 2.94 0.225 3.4 6.9 6.9 7.12 0.545 3.4 7.2	0.1057 9 35.8 1.4 3.52 182 0.484 3.22 0.484 3.22 0.484 3.4 6.9 6.9 7.8 0.997 3.4 7.2	256.8 0.1058 9 36 1.4 3.52 1.82 0.786 3.3 0.253 3.4 6.9 6.9 8 0.612 3.4 7.2	258.8 0.1057 9 36.5 1.4 3.56 1.82 0.890 3.33 0.255 3.4 6.9 8.07 0.618 3.4 7.2	180.4 0.1056 9 27.8 1.4 2.76 0.769 2.32 0.178 3.4 6.8 6.8 5.63 0.431 3.4 7.1	188.7 0.1057 9 29.1 1.4 2.88 182 0.973 2.43 0.186 3.4 6.9 6.9 5.88 0.451 3.4 7.1	203.3 0.1056 9 31.5 1.4 3.07 1.075 2.62 0.2 3.4 6.9 6.9 6.35 0.486 3.4 7.1	208.7 0.1057 9 32.3 1.4 3.13 182 0.640 2.68 0.205 3.4 6.9 6.9 6.51 0.498 3.4 7.1	0.1057 9 31.9 1.4 3.09 182 0.799 2.72 0.208 3.4 6.9 6.9 6.9 6.6 0.505 3.4 7.1	0.1057 9 25.4 1.4 2.52 182 0.699 2.11 0.162 3.4 6.8 6.8 6.8 5.12 0.392	171.4 0.1057 9 26.1 1.4 2.59 182 0.803 2.2 0.169 3.4 6.8 6.8 5.34 0.409 3.4 7	184.4 0.1057 9 28.4 1.4 2.77 182 1.066 2.37 0.182 3.4 6.9 6.9 5.75 0.44 3.4 3.4 7.1	0.1057 9 28.9 1.4 2.8 182 0.480 2.43 0.186 3.4 6.9 6.9 5.9 0.452 3.4 7.1	0.1056 9 28.5 1.4 2.76 182 0.658 2.46 0.188 3.4 6.9 6.9 5.96 0.456 3.4 7.1	0.1055 9 23.5 1.4 2.32 182 0.593 1.79 0.137 3.4 6.8 6.8 6.8 4.35 0.333 3.4 7	0.1056 9 23.6 1.4 2.32 182 0.730 1.84 0.141 3.4 6.8 6.8 4.45 0.341 3.4 7	0.1056 9 23.7 1.4 2.31 182 0.868 1.93 0.148 3.4 6.8 6.8 6.8 4.68 0.358	0.1057 9 23.9 1.4 2.31 1.82 1.094 1.98 0.152 3.4 6.8 6.8 6.8 4.81 0.368 3.4 7	0.1056 9 23.8 1.4 2.31 182 0.491 2.02 0.155 3.4 6.8 6.8 6.8 4.91 0.376 3.4 7
NOX AS NO2           CO           CO           VOC           YOC           Formaldehyde           Formaldehyde           Sox mass flow rate (as SO2)           Sufur Mass as H2SO4           Filterable Particulates           Total Paricolates           Ph10/2.5           SOx mass flow rate (as SO2)           Sufur Mass as H2SO4           Filterable Particulates           Total Particulates           Total Particulates           Ph10/2.5           Stack Exit Conditions (Includes Temper Exhaust vol flow           Exhaust Glassku Valority, Mirec	b/MMBBu pomvd b/hr pomvw b/hr pb/hr b/hr b/hr b/h b/h b/h b/h b/h b/h b/h b/h b/h b/h	0.1058 9 34,2 1,4 3-53 182 1.097 3.31 0.254 3.4 6.9 6.9 8.03 0.615 3.4 7.2 7.2 3.696340 130,74	0.1057 9 34.3 1.4 3.52 0.481 3.31 0.254 3.4 6.9 6.9 8.03 0.615 3.4 7.2 7.2 3678760 130.12	0.1057 9 34.5 1.4 3.47 182 1.033 3.12 0.239 3.4 6.9 6.9 6.9 7.56 0.579 3.4 7.2 7.2 3634340 128.55	0.1057 9 34.9 1.4 3.51 182 1.098 3.15 0.241 3.4 6.9 7.64 0.585 3.4 7.2 7.2 3653090 129.21	0.1058 9 35.7 1.4 3.52 182 0.608 3.24 0.248 3.4 6.9 6.9 7.86 0.602 3.4 7.2 7.2 3.57 5710 126.48	0.1057 9 31.8 1.4 3.1.7 182 0.921 2.78 0.213 3.4 6.9 6.9 6.9 6.75 0.517 3.4 7.1 7.1 7.1 3318790 117.39	0.1057 9 33.3 1.4 3.31 1.42 1.045 2.94 0.225 3.4 6.9 6.9 7.12 0.545 3.4 7.2 7.2	0.1057 9 35.8 1.4 3.52 0.484 3.22 0.246 3.4 6.9 6.9 7.8 0.99 7.8 0.99 7.8 0.99 7.8 0.99 7.2 7.2 3.4 7.2 7.2	256.8 0.1058 9 36 1.4 3.52 182 0.785 3.3 0.253 3.4 6.9 8 0.612 3.4 7.2 7.2 7.2 3516680 124.39	258.8 0.1057 9 36.5 1.4 3.56 182 0.820 3.33 0.255 3.4 6.9 8.07 0.618 3.4 5.9 8.07 0.618 3.4 7.2 7.2 7.2 3400080 120.26	180.4 0.1056 9 27.8 1.4 2.76 182 0.76 182 0.178 3.4 6.8 5.63 0.431 3.4 7.1 7.1 7.1 2835650 100.30	188.7 0.1057 9 29.1 1.4 2.88 182 0.973 2.43 0.186 3.4 6.9 5.88 0.451 3.4 7.1 7.1 7.1 2901740 102.64	203.3 0.1056 9 31.5 1.4 3.07 182 1.075 2.62 0.2 3.4 6.9 6.3 0.486 3.4 7.1 7.1 2932000 103.71	208.7 0.1057 9 32.3 1.4 3.13 182 0.640 2.68 0.205 3.4 6.9 6.51 0.498 3.4 7.1 7.1 28866950 102.11	0.1057 9 31.9 1.4 3.09 182 0.799 2.72 0.208 3.4 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.4 7.1 7.1 7.1 2816420 99.62	0.1057 9 25.4 1.4 2.52 182 0.699 2.11 0.162 3.4 6.8 6.8 5.12 0.392 3.4 7 7 7 2632870 <b>93.13</b>	171.4 0.1057 9 26.1 1.4 2.59 182 0.803 2.2 0.169 3.4 6.8 5.34 0.409 3.4 7 7 2690300 95.16	184.4 0.1057 9 28.4 1.4 2.77 182 1.066 2.37 0.182 3.4 6.9 5.75 0.44 3.4 3.4 6.9 5.75 0.44 3.4 7.1 7.1 2711890 95.92	0.1057 9 28.9 1.4 2.8 182 0.480 2.43 0.186 3.4 6.9 6.9 5.9 0.452 3.4 7.1 7.1 7.1 2671180 94.48	0.1056 9 28.5 1.4 2.76 0.658 2.46 0.188 3.4 6.9 6.9 5.96 0.456 3.4 7.1 7.1 7.1 22612200 92.40	0.1055 9 23.5 1.4 2.32 182 0.593 1.79 0.137 3.4 6.8 6.8 6.8 4.35 0.333 3.4 7 7 2423440 85.72	0.1056 9 23.6 1.4 2.32 1.82 0.730 1.84 0.141 3.4 6.8 6.8 6.8 4.45 0.341 3.4 7 7 2417090 85.49	0.1056 9 23.7 1.4 2.31 182 0.868 1.93 0.148 3.4 6.8 6.8 6.8 6.8 4.68 0.358 3.4 7 7 2365180 83.66	0.1057 9 23.9 1.4 2.31 182 1.094 1.98 0.152 3.4 6.8 6.8 6.8 4.81 0.368 3.4 7 7 2340600 82.79	0.1056 9 23.8 1.4 2.31 182 0.491 2.02 0.155 3.4 6.8 6.8 4.91 0.376 3.4 7 7 2299250 81.33
NOX AS NO2 CO CO VOC Formaldehyde Formaldehyde SOX mass flow rate (as SO2) Sufur Mist as H2SO4 Filterable Particulates Total Particulates PM10/2.5 SOX mass flow rate (as SO2) Sufur Mist as H2SO4 Filterable Particulates PM10/2.5 SOX mass flow rate (as SO2) Sufur Mist as H2SO4 Filterable Particulates PM10/2.5 Stack Mass flow (Includes Temper Exhaust voli flow Exhaust voli flow Exhaust voli flow	b/MMBBu ppmvd lb/hr ppmvu lb/hr b/hr b/hr b/h b/h b/h b/h b/h b/h b/h ib/h ib/h i	0.1058 9 34.2 1.4 3.53 182 1.097 3.31 0.254 6.9 6.9 6.9 8.03 0.615 3.4 7.2 7.2 3696340 130.74 6508120	0.1057 9 34.3 1.4 3.52 0.481 3.31 0.254 3.4 6.9 6.9 8.03 0.615 3.4 7.2 3678760 130.12 6485150	0.1057 9 34.5 1.4 1.4 3.47 1.82 1.033 3.12 0.239 3.4 6.9 6.9 7.56 0.579 3.4 7.2 3634340 128.55 6429200	0.1057 9 34.9 1.4 3.51 182 1.098 3.15 0.241 3.4 6.9 6.9 7.64 0.585 3.4 7.2 3653090 129.21 6468540	0.1058 9 35.7 1.4 3.52 182 0.608 3.24 0.608 3.24 0.608 3.24 0.608 3.4 7.2 7.86 0.602 3.4 7.2 3575710 126.48 6371540	0.1057 9 31.8 1.4 3.17 182 0.921 2.78 0.921 2.78 0.921 3.4 6.9 6.9 6.9 6.75 0.517 3.4 7.1 3318790 117.39	0.1057 9 33.3 1.4 3.31 182 1.045 2.94 0.255 3.4 6.9 6.9 7.12 0.545 3.4 7.2 3450630 122.05 6120090	0.1057 9 35.8 1.4 3.52 182 0.484 3.22 0.484 3.22 0.484 6.9 6.9 7.8 0.597 3.4 7.2 3573700 126.41 6372270	256.8 0.1058 9 9 36 1.4 3.52 0.786 0.786 0.253 3.4 6.9 6.9 8 0.612 3.4 7.2 7.2 3.4 7.2 3.516680 124.39 6283790	258.8 0.1057 9 36.5 1.4 3.56 182 0.890 3.33 0.255 3.4 6.9 8.07 0.618 3.4 7.2 3400080 120.26 6077840	180.4 0.1056 9 27.8 1.4 2.76 182 0.769 2.32 0.178 3.4 6.8 5.63 0.431 3.4 7.1 7.1 7.1 2835650 100.30 5028380	188.7 0.1057 9 29.1 14.2.88 182 0.973 2.43 0.186 3.4 6.9 6.9 5.88 0.451 3.4 7.1 7.1 2901740 102.64 5.147620	203.3 0.1056 9 31.5 1.4 3.07 182 1.075 2.62 0.2 0.2 3.4 6.9 6.9 6.35 0.486 3.4 7.1 2932000 103.71 5228550	208.7 0.1057 9 32.3 1.4 3.13 182 0.640 2.68 0.205 3.4 6.9 6.9 6.51 0.498 3.4 7.1 2886950 102.11 5155170	0.1057 9 31.9 1.4 3.09 1.82 0.799 2.72 0.208 3.4 6.9 6.9 6.9 6.9 6.9 6.9 6.6 0.505 3.4 7.1 2816420 99.62 5035310	0.1057 9 25.4 1.4 2.52 182 0.699 2.11 0.162 3.4 6.8 6.8 6.8 6.8 6.8 5.12 0.392 3.4 7 7 2632870 <b>93.13</b> 4669870	171.4 0.1057 9 26.1 1.4 2.59 182 0.803 2.2 0.169 3.4 6.8 5.34 0.409 3.4 7 7 2690300 95.16 4773650	184.4 0.1057 9 28.4 1.4 2.77 182 2.37 0.182 3.4 6.9 6.9 5.75 0.44 3.4 7.1 7.1 2711890 95.92	0.1057 9 28.9 1.4 2.8 1.82 0.480 2.43 0.480 3.4 6.9 6.9 5.9 0.452 3.4 7.1 7.1 2671180 94.48	0.1056 9 28.5 1.4 2.76 0.658 2.46 0.182 0.658 3.4 6.9 6.9 5.96 0.456 3.4 7.1 7.1 22612200 92.40 4672020	0.1055 9 23.5 1.4 2.32 1.82 0.593 1.79 0.137 3.4 6.8 6.8 6.8 6.8 6.8 0.333 3.4 7 7 2422440 4302140	0.1056 9 23.6 1.4 2.32 1.82 0.730 1.84 0.141 3.4 6.8 6.8 6.8 6.8 4.45 0.341 3.4 7 7 2417090 85.49 4292390	0.1056 9 23.7 1.4 2.31 182 0.668 1.93 0.148 3.4 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 3.4 7 7 2365180 83.66 822255	0.1057 9 23.9 1.4 23.1 1.82 1.094 1.98 0.152 3.4 6.8 6.8 6.8 6.8 6.8 6.8 6.8 3.4 7 7 2340600 82.79 4187740	0.1056 9 23.8 1.4 2.31 182 0.491 2.02 0.155 3.4 6.8 6.8 6.8 4.91 0.376 3.4 7 7 2299250 81.33 4115890
NOV AS NO2 CO CO CO VOC Formaldehyde Formaldehyde SOX mass flow rate (as SO2) Sufur Mat as H2SO4 Filterable Particulates Total Particulates PM10/2.5 SOX mass flow rate (as SO2) Sufur Mat as H2SO4 Filterable Particulates Total Particulates PM10/2.5 SI SoX mass flow rate (as SO2) Sufur Mat as H2SO4 Filterable Particulates PM10/2.5 Stack tait Conditions (Includes Tempere Exhaust vol flow Exhaust vol flow Exhaust vol flow Stack Kaass flow, yer stack Stack Temperature	b/NMMBtu ppmvd ib/hr ppmvv ib/hr pb/vd @ 15% 02 ib/h ib/hr ib/h ib/h ib/h ib/hr ib/hr ib/hr ib/hr ib/h ib/h ib/h ib/h ib/h ib/h ib/h	0.1058 9 34.2 1.4 3.53 182 1.097 3.31 0.254 3.4 6.9 8.03 0.615 3.4 7.2 7.2 3696340 130.74 6508120 850	0.1057 9 34.3 352 182 0.481 3.31 0.254 3.4 6.9 8.03 0.615 3.4 7.2 7.2 3678760 130.12 6485150 850	0.1057 9 34.5 1.4 3.47 182 1.033 3.12 0.239 3.4 6.9 7.56 0.579 3.4 6.9 7.56 0.579 3.4 7.2 7.2 7.2 3634340 128.55 6429200	0.1057 9 34.9 1.4 3.51 182 1.098 3.15 0.241 3.4 4.4 4.9 6.9 6.9 7.64 0.855 3.4 7.2 7.2 3653090 129.21 6468540 850	0.1058 9 35.7 1.4 3.52 182 0.608 3.24 0.248 3.4 6.9 7.86 0.602 3.4 7.2 7.2 7.2 3575710 126.48 6331540	0.1057 9 31.8 1.4 3.17 182 0.921 2.78 0.213 3.4 6.9 6.75 0.517 3.4 6.9 6.75 0.517 3.4 7.1 7.1 7.1 7.1 3318790 117.39 5883390 850	0.1057 9 33.3 1.4 3.31 182 1.045 2.94 0.225 4.9 6.9 6.9 7.12 0.545 3.4 7.2 7.2 3450630 122.05 6120005 850	0.1057 9 35.8 1.4 3.52 0.246 3.4 6.9 7.8 0.597 3.4 7.2 7.2 3573700 126.41 6372270 850	256.8 0.1058 9 9 36 1.4 3.52 182 0.782 3.3 0.253 3.4 6.9 8 0.612 3.4 6.9 8 0.612 3.4 7.2 7.2 3516680 124.39 6283790 850	258.8 0.1057 9 36.5 1.4 3.56 182 0.820 0.820 0.825 3.4 6.9 8.07 0.618 3.4 7.2 7.2 3.40080 120.26 6077840 850	180.4 0.1056 9 27.8 1.4 2.76 182 0.769 2.32 0.178 3.4 6.8 5.63 0.431 7.1 7.1 2835650 100.30 502830 850	188.7 0.1057 9 29.1 1.4 2.88 182 0.973 2.43 0.186 3.4 0.186 3.4 6.9 6.9 5.88 0.451 5.88 0.451 7.1 7.1 7.1 2901740 102.64 5147620 850	203.3 0.1056 9 31.5 1.4 3.07 182 1.075 2.62 0.2 3.4 6.9 6.9 6.9 6.9 6.35 0.486 0.486 7.1 7.1 2932000 103.71 5228550 850	208.7 0.1057 9 3.2.3 1.4 1.4 1.62 0.640 2.68 0.205 3.4 6.9 6.9 6.51 0.498 6.9 6.51 0.498 4.7 1.7 1.1 7.1 7.1 7.1 7.1 7.1 7	0.1057 9 33.9 1.4 3.09 182 0.799 2.72 0.208 3.4 6.9 6.9 6.9 6.9 6.6 0.505 3.4 7.1 7.1 7.1 2816420 99.62 5035310 850	0.1057 9 25,4 1,4 2,52 182 0,699 2,11 0,162 3,4 6,8 6,8 6,8 5,12 0,392 3,4 7 7 7 2632870 93,13 4668870 8850	171.4 0.1057 9 26.1 1.4 2.59 182 0.803 2.2 0.169 3.4 6.8 5.34 0.409 3.4 6.8 5.34 0.409 3.4 7 7 2690300 95.16 4773650 850	184.4 0.1057 9 28.4 1.4 2.77 182 1.066 2.37 0.182 3.4 5.75 0.44 3.4 7.1 7.1 2711890 95.92 4837400 850	0.1057 9 28.9 1.4 2.8 182 0.480 2.43 0.480 2.43 0.480 3.4 6.9 6.9 5.9 0.452 3.4 7.1 7.1 7.1 2671180 94.48 4775050 850	0.1056 9 28.5 1.4 2.76 0.182 0.658 3.4 6.9 5.96 0.456 3.4 7.1 7.1 7.1 2612200 92.40 4672020	0.1055 9 23.5 1.4 2.32 182 0.593 1.79 0.137 3.4 6.8 4.35 0.333 3.4 7 7 2423440 85.72 4302180	0.1056 9 23.6 1.4 2.32 1.82 0.730 1.84 0.730 1.84 0.730 1.84 0.341 3.4 7 7 2417090 85.49 825.49 825.0	0.1056 9 23.7 1.4 2.31 182 0.868 1.93 0.148 3.4 6.8 4.68 0.358 3.4 6.8 4.68 0.358 3.4 7 7 2365180 83.66 422250	0.1057 9 23.9 1.4 2.31 182 1.094 1.98 0.152 3.4 6.8 4.81 0.368 3.4 7 7 2340600 82.79 4187740 850	0.1056 9 23.8 1.4 2.31 182 0.491 2.02 0.155 3.4 6.8 6.8 6.8 6.8 4.91 0.376 3.4 7 7 2299250 81.33 411580 850
NOX AS NO2 CO CO CO VOC Formaldehyde Formaldehyde SOX mass flow rate (as SO2) Sulur Mat as H2SO4 Filterable Particulates Total Particulates PMI0/2.5 SOX mass flow rate (as SO2) Sulur Mat as H2SO4 Filterable Particulates PMI0/2.5 Stack Mas (not (as SO2) Sulur Mat as H2SO4 Filterable Particulates PMI0/2.5 Stack Mas (not, per stack Stack Mas) (now per stack Stack Mas) (now per stack Stack Mas) (now per stack Stack Mas) (now per stack	b/MMBBu pomvd b/hr pomvw b/hr pb/hr b/hr b/hr b/h b/h b/h b/h b/h b/h b/h b/h b/h b/h	0.1058 9 34.2 1.4 3.53 182 1.07 3.31 0.254 3.4 7.2 6.9 8.03 0.615 3.4 7.2 3696340 130.74 6508120 850 28.14	0.1057 9 34.3 1.4 3.52 0.481 3.31 0.254 3.4 6.9 6.9 6.9 8.03 0.615 3.4 7.2 7.2 3678760 33678760 33678760 33678760 33678760 28.17	0.1057 9 34.5 1.4 347 182 1.033 3.12 0.239 3.4 6.9 6.9 6.9 6.9 7.56 0.579 3.4 7.2 7.2 3634340 128.55 6429200 850 28.27	0.1057 9 34.9 1.4 3.51 182 1.098 3.15 0.241 3.4 6.9 6.9 7.64 0.585 3.4 7.2 7.2 3653090 129.21 6468540 850 28.30	0.1058 9 35.7 1.4 3.52 1.82 0.608 3.24 0.608 3.24 0.608 3.4 6.9 6.9 6.9 7.86 0.602 3.4 7.2 7.2 3575710 126.48 6371540 850 28.48	0.1057 9 31.8 1.4 3.17 182 0.921 2.78 0.921 2.78 0.9 6.9 6.9 6.9 6.9 6.75 0.517 3.4 7.1 7.1 3318790 117.39 5883390 850 28.33	0.1057 9 33.3 1.4 3.31 182 1.045 2.94 0.255 3.4 6.9 6.9 6.9 6.9 7.12 0.545 3.4 7.2 7.2 3450630 122.05 6120090 850 28.34	0.1057 9 35.8 1.4 3.52 0.484 3.22 0.484 3.22 0.484 3.4 6.9 6.9 6.9 7.8 0.597 3.4 7.2 7.2 3573700 126.41 6372270 850 28.50	256.8 0.1058 9 36 1.4 3.52 182 0.786 3.3 0.253 3.4 6.9 6.9 8 0.612 3.4 7.2 3516680 124.39 6283790 850 28.56	258.8 0.1057 9 36.5 1.4 3.56 182 0.890 3.33 0.255 3.4 6.9 6.9 6.9 6.9 6.9 8.07 0.618 3.4 7.2 3400080 120.26 6077840 8.57	180.4 0.1056 9 27.8 1.2,76 182 0.769 2.32 0.178 3.4 6.8 6.8 6.8 6.8 6.8 0.431 3.4 7.1 2835650 100.30 5028380 850 28.34	188.7 0.1057 9 29.1 14.2.88 182 0.973 2.43 0.186 3.4 6.9 6.9 6.9 5.88 0.451 3.4 7.1 2901740 102.64 5147620 850 28.35	203.3 0.1056 9 31.5 1.4 3.07 182 0.2 0.2 3.4 6.9 6.9 6.9 6.9 6.9 6.35 0.486 0.486 0.486 0.485	208.7 9 9 3.2 1.4 3.13 182 0.640 2.68 0.205 3.4 6.9 6.9 6.9 6.9 6.9 6.9 6.9 1.4 3.4 7.1 2886950 102.11 5159170 850 28.56	0.1057 9 31.9 1.4 3.09 1.82 0.799 2.72 0.208 3.4 6.9 6.9 6.9 6.6 0.505 3.4 7.1 7.1 2816420 99.62 5035310 850 28.57	0.1057 9 25.4 1.4 2.52 182 0.699 2.11 0.162 3.4 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 5.12 0.392 3.4 7 7 7 2632870 93.13 4669870 850 28.34	171.4 0.1057 9 26.1 1.4 2.59 182 0.169 3.4 6.8 6.8 6.8 5.34 0.409 3.4 7 2690300 95.16 4773650 850 28.36	184.4 0.1057 9 28.4 1.4 2.77 182 2.37 0.182 3.4 6.9 6.9 5.75 0.44 3.4 7.1 2711890 95.92 4837400 850 28.51	0.1057 9 28.9 1.4 2.8 182 0.480 2.43 0.186 3.4 6.9 6.9 6.9 5.9 0.452 3.4 7.1 7.1 2671180 94.48 4775050 850 28.57	0.1056 9 28.5 1.4 2.76 1.82 0.658 2.46 0.188 3.4 6.9 5.96 0.456 3.4 5.96 0.456 3.4 7.1 7.1 7.1 2612200 92.40 4672020 850 28.58	0.1055 9 23.5 1.4 2.32 1.82 0.593 1.79 0.137 3.4 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8	0.1056 9 23.6 1.4 2.32 1.82 0.730 1.84 0.141 3.4 6.8 6.8 6.8 6.8 6.8 6.8 0.341 3.4 7 7 7 2417090 85.49 4292390 850 28.38	0.1056 9 23.7 1.4 2.31 182 0.868 1.93 0.148 3.4 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 3.4 4.68 0.358 3.4 7 7 7 2365180 83.66 4222250 853	0.1057 9 23.9 1.4 2.31 1.82 1.094 1.98 0.152 3.4 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8	0 1056 9 23.8 1.4 2.31 182 0.491 2.02 0.155 3.4 6.8 6.8 6.8 6.8 4.91 0.376 3.4 7 7 7 2299250 81.33 4115890 850 28.61
NOV AS NO2 CO CO VOC VOC Formaldehyde Formaldehyde SOX mass flow rate (as SO2) Sufur Mat as H2SO4 Filterable Particulates PM10/2.5 SOX mass flow rate (as SO2) Sufur Mat as H2SO4 Filterable Particulates PM10/2.5 SOX mass flow rate (as SO2) Sufur Mat as H2SO4 Filterable Particulates PM10/2.5 Stack Kait Conditions (Includes Temper Exhaust volt flow Exhaust Ges Stack Violoxin, Risco Stack Mass flow, per stack Stack Molecular Weight Stack Molecular Weight	b/NMMBtu ppmvd ib/hr ppmvv ib/hr pb/vd @ 15% 02 ib/h ib/hr ib/h ib/h ib/h ib/hr ib/hr ib/hr ib/hr ib/h ib/h ib/h ib/h ib/h ib/h ib/h	0.1058 9 34.2 1.4 3.5 3.5 182 1.07 3.31 0.254 3.4 6.9 8.03 0.615 3.4 7.2 7.2 3696340 130.7 6508120 850 28.14 24.5	0.1057 9 34.3 1.4 3.52 182 0.481 0.254 3.4 6.9 8.03 0.615 3.4 7.2 7.2 3678760 130.12 6485150 850 28.17 24.5	0.1057 9 34.5 1.4 3.47 182 1.033 3.12 0.239 3.4 6.9 7.56 0.579 3.4 7.2 7.2 7.2 3634340 128.55 6429200 850 28.57 24.5	0.1057 9 34.9 1.4 3.51 182 1.098 3.15 0.241 3.4 6.9 7.64 0.585 3.4 7.2 7.2 3653090 120.21 646540 850 28.30 24.5	0.1058 9 35.7 1.4 3.52 182 0.608 3.24 0.248 3.4 6.9 7.86 0.602 3.4 7.2 7.2 7.2 3575710 126.48 6371540 850 28.48 24.5	0.1057 9 31.8 1.4 3.17 182 0.921 2.78 0.213 3.4 6.9 6.75 0.517 3.4 7.1 7.1 7.1 3318790 117.39 5883390 5583390 850 28.33 24.5	0.1057 9 33.3 1.4 3.31 182 1.045 2.94 0.225 3.4 0.245 6.9 7.12 0.545 3.4 7.2 7.2 3450630 122.05 6120090 850 28.34 24.5	0.1057 9 35.8 1.4 3.52 0.246 3.4 6.9 7.8 0.597 3.4 7.2 7.2 7.2 3573700 126.41 6372270 850 28.50 24.5	256.8 0.1058 9 36 1.4 3.52 182 0.786 3.3 0.253 3.4 6.9 6.9 8 0.612 3.4 7.2 7.2 3516680 124.39 6283790 850 28.56 24.55	258.8 0.1057 9 36.5 1.4 3.56 182 0.890 3.33 0.255 3.4 6.9 6.9 6.9 8.07 0.618 3.4 7.2 7.2 3400080 120.26 600780 850 28.57 24.5 5	180.4 0.1055 9 27.8 182 0.769 2.32 0.769 2.32 0.769 2.32 0.769 2.32 0.769 2.32 0.769 2.32 0.769 2.32 0.769 2.32 0.761 2.32 0.761 2.32 0.731 2.32 0.431 3.4 6.8 5.63 0.431 3.4 7.1 7.1 7.1 7.1 7.1 7.1 7.1 7.1	188.7 0.1057 9 29.1 1.4 2.88 182 0.973 2.43 0.186 3.4 6.9 5.88 0.451 3.4 7.1 7.1 7.1 2901740 102.64 5147620 850 28.35 24.5	203.3 0.1056 9 31.5 1.4 3.07 182 1.075 2.62 0.2 3.4 6.9 6.35 0.486 3.4 7.1 7.1 2932000 103.71 522850 850 28.50 24.5	208.7 0.1057 9 3.2,3 1.4 3.13 182 0.640 2.68 0.205 3.4 6.9 6.9 6.51 0.498 3.4 7.1 7.1 7.1 2886950 102.11 5159170 850 28.5 24.5	0.1057 9 31.9 1.4 3.09 182 0.799 2.72 0.208 3.4 6.9 6.9 6.9 6.9 6.9 6.9 6.6 0.505 3.4 7.1 7.1 7.1 2816420 9.035310 5035310 850 28.57 24.5	0.1057 9 25,4 1,4 2,52 182 0,699 2,11 0,162 3,4 6,8 5,12 0,392 3,4 7 7 7 2632870 9,13 4669870 850 850 28,34 24,5	171.4 0.1057 9 26.1 1.4 2.59 1.4 2.59 3.4 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8	184.4 0.1057 9 28.4 1.4 2.77 0.182 1.066 2.37 0.182 3.4 6.9 5.75 0.44 3.4 7.1 7.1 7.1 2711890 95.92 4837400 850 28.51 24.5	0.1057 9 28.9 1.4 2.8 182 0.480 0.186 3.4 6.9 5.9 0.452 3.4 7.1 7.1 2671180 94.48 4775050 850 28.57 24.5	0.1056 9 28.5 1.4 2.76 182 0.658 3.4 6.9 5.96 0.456 3.4 7.1 7.1 7.1 2612200 92.0 4672020 850 28.58 24.5	0.1055 9 23.5 1.4 2.32 182 0.593 1.79 0.137 3.4 6.8 4.35 0.333 3.4 7 7 7 2423440 <b>857</b> 2423440 <b>850</b> 28.37 24.5	0.1056 9 23.6 1.4 2.32 182 0.730 1.84 0.141 3.4 6.8 4.45 0.341 3.4 6.8 4.45 0.341 3.4 7 7 2417090 <b>85.49</b> 4292390 850 28.38 24.5	0.1055 9 23.7 1.4 2.31 182 0.868 1.93 0.148 3.4 6.8 0.358 3.4 4.68 0.358 3.4 7 7 7 2365180 83.66 4222250 850 850 28.53 24.5	0.1057 9 23.9 1.4 2.31 182 1.094 1.98 0.152 3.4 6.8 6.8 4.81 0.368 3.4 7 7 2340600 82,79 4187740 850 28.59 24.5	0 1056 9 23.8 1.4 2.31 182 0.491 2.02 0.155 3.4 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 7 7 7 2299250 81.33 4.415890 28.51 24.5
NOX AS NO2 CO CO CO VOC Formaldehyde Formaldehyde SOX mass flow rate (as SO2) Sulur Mat as H2SO4 Filterable Particulates Total Particulates PMI0/2.5 SOX mass flow rate (as SO2) Sulur Mat as H2SO4 Filterable Particulates PMI0/2.5 Stack Mas (not (as SO2) Sulur Mat as H2SO4 Filterable Particulates PMI0/2.5 Stack Mas (not, per stack Stack Mas) (now per stack Stack Mas) (now per stack Stack Mas) (now per stack Stack Mas) (now per stack	b/NMMBtu ppmvd ib/hr ppmvv ib/hr pb/vd @ 15% 02 ib/h ib/hr ib/h ib/h ib/h ib/hr ib/hr ib/hr ib/hr ib/h ib/h ib/h ib/h ib/h ib/h ib/h	0.1058 9 34.2 1.4 3.53 182 1.07 3.31 0.254 3.4 7.2 6.9 8.03 0.615 3.4 7.2 3696340 130.74 6508120 850 28.14	0.1057 9 34.3 1.4 3.52 0.481 3.31 0.254 3.4 6.9 6.9 6.9 8.03 0.615 3.4 7.2 7.2 3678760 33678760 33678760 33678760 33678760 28.17	0.1057 9 34.5 1.4 347 182 1.033 3.12 0.239 3.4 6.9 6.9 6.9 6.9 7.56 0.579 3.4 7.2 7.2 3634340 128.55 6429200 850 28.27	0.1057 9 34.9 1.4 3.51 182 1.098 3.15 0.241 3.4 6.9 6.9 7.64 0.585 3.4 7.2 7.2 3653090 129.21 6468540 850 28.30	0.1058 9 35.7 1.4 3.52 1.82 0.608 3.24 0.608 3.24 0.608 3.4 6.9 6.9 6.9 7.86 0.602 3.4 7.2 7.2 3575710 126.48 6371540 850 28.48	0.1057 9 31.8 1.4 3.17 182 0.921 2.78 0.921 2.78 0.9 6.9 6.9 6.9 6.9 6.75 0.517 3.4 7.1 7.1 3318790 117.39 5883390 850 28.33	0.1057 9 33.3 1.4 3.31 182 1.045 2.94 0.255 3.4 6.9 6.9 6.9 6.9 7.12 0.545 3.4 7.2 7.2 3450630 122.05 6120090 850 28.34	0.1057 9 35.8 1.4 3.52 0.484 3.22 0.484 3.22 0.484 3.4 6.9 6.9 6.9 7.8 0.597 3.4 7.2 7.2 3573700 126.41 6372270 850 28.50	256.8 0.1058 9 36 1.4 3.52 182 0.786 3.3 0.253 3.4 6.9 6.9 8 0.612 3.4 7.2 3516680 124.39 6283790 850 28.56	258.8 0.1057 9 36.5 1.4 3.56 182 0.890 3.33 0.255 3.4 6.9 6.9 6.9 6.9 6.9 8.07 0.618 3.4 7.2 3400080 120.26 6077840 8.57	180.4 0.1056 9 27.8 1.2,76 182 0.769 2.32 0.178 3.4 6.8 6.8 6.8 6.8 6.8 0.431 3.4 7.1 2835650 100.30 5028380 850 28.34	188.7 0.1057 9 29.1 14.2.88 182 0.973 2.43 0.186 3.4 6.9 6.9 6.9 5.88 0.451 3.4 7.1 2901740 102.64 5147620 850 28.35	203.3 0.1056 9 31.5 1.4 3.07 182 0.2 0.2 3.4 6.9 6.9 6.9 6.9 6.9 6.35 0.486 0.486 0.486 0.485	208.7 9 9 3.2 1.4 3.13 182 0.640 2.68 0.205 3.4 6.9 6.9 6.9 6.9 6.9 6.9 6.9 1.4 3.4 7.1 2886950 102.11 5159170 850 28.56	0.1057 9 31.9 1.4 3.09 1.82 0.799 2.72 0.208 3.4 6.9 6.9 6.9 6.6 0.505 3.4 7.1 7.1 2816420 99.62 5035310 850 28.57	0.1057 9 25.4 1.4 2.52 182 0.699 2.11 0.162 3.4 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 5.12 0.392 3.4 7 7 7 2632870 93.13 4669870 850 28.34	171.4 0.1057 9 26.1 1.4 2.59 182 0.169 3.4 6.8 6.8 6.8 5.34 0.409 3.4 7 2690300 95.16 4773650 850 28.36	184.4 0.1057 9 28.4 1.4 2.77 182 2.37 0.182 3.4 6.9 6.9 5.75 0.44 3.4 7.1 2711890 95.92 4837400 850 28.51	0.1057 9 28.9 1.4 2.8 182 0.480 2.43 0.186 3.4 6.9 6.9 6.9 5.9 0.452 3.4 7.1 7.1 2671180 94.48 4775050 850 28.57	0.1056 9 28.5 1.4 2.76 1.82 0.658 2.46 0.188 3.4 6.9 5.96 0.456 3.4 5.96 0.456 3.4 7.1 7.1 7.1 2612200 92.40 4672020 850 28.58	0.1055 9 23.5 1.4 2.32 1.82 0.593 1.79 0.137 3.4 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8	0.1056 9 23.6 1.4 2.32 1.82 0.730 1.84 0.141 3.4 6.8 6.8 6.8 6.8 6.8 6.8 0.341 3.4 7 7 7 2417090 85.49 4292390 850 28.38	0.1056 9 23.7 1.4 2.31 182 0.868 1.93 0.148 3.4 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 3.4 4.68 0.358 3.4 7 7 7 2365180 83.66 4222250 853	0.1057 9 23.9 1.4 2.31 1.82 1.094 1.98 0.152 3.4 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8	0 1056 9 23.8 1.4 2.31 182 0.491 2.02 0.155 3.4 6.8 6.8 6.8 6.8 4.91 0.376 3.4 7 7 7 2299250 81.33 4115890 850 28.61
NOV AS NO2 CO CO VOC VOC Formaldehyde Formaldehyde SOX mass flow rate (as SO2) Sufur Mat as H2SO4 Filterable Particulates PM10/2.5 SOX mass flow rate (as SO2) Sufur Mat as H2SO4 Filterable Particulates PM10/2.5 SOX mass flow rate (as SO2) Sufur Mat as H2SO4 Filterable Particulates PM10/2.5 Stack Kait Conditions (Includes Temper Exhaust volt flow Exhaust Ges Stack Violoxin, Risco Stack Mass flow, per stack Stack Molecular Weight Stack Molecular Weight	b/NMMBtu ppmvd ib/hr ppmvv ib/hr pb/vd @ 15% 02 ib/h ib/hr ib/h ib/h ib/h ib/hr ib/hr ib/hr ib/hr ib/h ib/h ib/h ib/h ib/h ib/h ib/h	0.1058 9 34.2 1.4 3.5 3.5 182 1.07 3.31 0.254 3.4 6.9 8.03 0.615 3.4 7.2 7.2 3696340 130.7 6508120 850 28.14 24.5	0.1057 9 34.3 1.4 3.52 182 0.481 0.254 3.4 6.9 8.03 0.615 3.4 7.2 7.2 3678760 130.12 6485150 850 28.17 24.5	0.1057 9 34.5 1.4 3.47 182 1.033 3.12 0.239 3.4 6.9 7.56 0.579 3.4 7.2 7.2 7.2 3634340 128.55 6429200 850 28.57 24.5	0.1057 9 34.9 1.4 3.51 182 1.098 3.15 0.241 3.4 6.9 7.64 0.585 3.4 7.2 7.2 3653090 120.21 646540 850 28.30 24.5	0.1058 9 35.7 1.4 3.52 182 0.608 3.24 0.248 3.4 6.9 7.86 0.602 3.4 7.2 7.2 7.2 3575710 126.48 6371540 850 28.48 24.5	0.1057 9 31.8 1.4 3.17 182 0.921 2.78 0.213 3.4 6.9 6.75 0.517 3.4 7.1 7.1 7.1 3318790 117.39 5883390 5583390 850 28.33 24.5	0.1057 9 33.3 1.4 3.31 182 1.045 2.94 0.225 3.4 0.245 6.9 7.12 0.545 3.4 7.2 7.2 3450630 122.05 6120090 850 28.34 24.5	0.1057 9 35.8 1.4 3.52 0.246 3.4 6.9 7.8 0.597 3.4 7.2 7.2 7.2 3573700 126.41 6372270 850 28.50 24.5	256.8 0.1058 9 36 1.4 3.52 182 0.786 3.3 0.253 3.4 6.9 6.9 8 0.612 3.4 7.2 7.2 3516680 124.39 6283790 850 28.56 24.55	258.8 0.1057 9 36.5 1.4 3.56 182 0.890 3.33 0.255 3.4 6.9 6.9 6.9 8.07 0.618 3.4 7.2 7.2 3400080 120.26 600780 850 28.57 24.5 5	180.4 0.1055 9 27.8 182 0.769 2.32 0.769 2.32 0.769 2.32 0.769 2.32 0.769 2.32 0.769 2.32 0.769 2.32 0.769 2.32 0.761 2.32 0.761 2.32 0.731 2.32 0.431 3.4 6.8 5.63 0.431 3.4 7.1 7.1 7.1 7.1 7.1 7.1 7.1 7.1	188.7 0.1057 9 29.1 1.4 2.88 182 0.973 2.43 0.186 3.4 6.9 5.88 0.451 3.4 7.1 7.1 7.1 2901740 102.64 5147620 850 28.35 24.5	203.3 0.1056 9 31.5 1.4 3.07 182 1.075 2.62 0.2 3.4 6.9 6.35 0.486 3.4 7.1 7.1 2932000 103.71 522850 850 28.50 24.5	208.7 0.1057 9 3.2,3 1.4 3.13 182 0.640 2.68 0.205 3.4 6.9 6.9 6.51 0.498 3.4 7.1 7.1 7.1 2886950 102.11 5159170 850 28.5 24.5	0.1057 9 31.9 1.4 3.09 182 0.799 2.72 0.208 3.4 6.9 6.9 6.9 6.9 6.9 6.9 6.6 0.505 3.4 7.1 7.1 7.1 2816420 9.035310 5035310 850 28.57 24.5	0.1057 9 25,4 1,4 2,52 182 0,699 2,11 0,162 3,4 6,8 5,12 0,392 3,4 7 7 7 2632870 9,13 4669870 850 850 28,34 24,5	171.4 0.1057 9 26.1 1.4 2.59 1.4 2.59 3.4 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8	184.4 0.1057 9 28.4 1.4 2.77 0.182 1.066 2.37 0.182 3.4 6.9 5.75 0.44 3.4 7.1 7.1 7.1 2711890 95.92 4837400 850 28.51 24.5	0.1057 9 28.9 1.4 2.8 182 0.480 0.186 3.4 6.9 5.9 0.452 3.4 7.1 7.1 2671180 94.48 4775050 850 28.57 24.5	0.1056 9 28.5 1.4 2.76 182 0.658 3.4 6.9 5.96 0.456 3.4 7.1 7.1 7.1 2612200 92.0 4672020 850 28.58 24.5	0.1055 9 23.5 1.4 2.32 182 0.593 1.79 0.137 3.4 6.8 4.35 0.333 3.4 7 7 7 2423440 <b>857</b> 2423440 <b>850</b> 28.37 24.5	0.1056 9 23.6 1.4 2.32 182 0.730 1.84 0.141 3.4 6.8 4.45 0.341 3.4 6.8 4.45 0.341 3.4 7 7 2417090 <b>85.49</b> 4292390 850 28.38 24.5	0.1055 9 23.7 1.4 2.31 182 0.868 1.93 0.148 3.4 6.8 0.358 3.4 4.68 0.358 3.4 7 7 7 2365180 83.66 4222250 850 850 28.53 24.5	0.1057 9 23.9 1.4 2.31 182 1.094 1.98 0.152 3.4 6.8 6.8 4.81 0.368 3.4 7 7 2340600 82,79 4187740 850 28.59 24.5	0 1056 9 23.8 1.4 2.31 182 0.491 2.02 0.155 3.4 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 7 7 7 2299250 81.33 4.415890 28.51 24.5
NOX AS NO2 CO CO CO VOC Formaldehyde Formaldehyde SOX mass flow rate (as SO2) Sufur Mat as H2SO4 Filterable Particulates Total Particulates PM10/2.5 SOX mass flow rate (as SO2) Sufur Mat as H2SO4 Filterable Particulates Total Particulates Total Particulates Total Particulates Stack Attic Conditions (Includes Temper Exhaust vol flow Exhaust Class Stack Velocity, Nixoc Stack Mass flow, per stack Stack Temperature Stack Diameter Stack Diameter Stack Diameter Stack Diameter Stack Diameter	b/NMMBtu ppmvd ib/hr ppmvv ib/hr pb/vd @ 15% 02 ib/h ib/hr ib/h ib/h ib/h ib/hr ib/hr ib/hr ib/hr ib/h ib/h ib/h ib/h ib/h ib/h ib/h	0.1058 9 34.2 1.4 3.53 182 1.037 3.31 0.254 3.4 6.9 6.9 8.03 0.615 3.4 7.2 7.2 3696340 130.74 6508120 850 28.14 24.5 150	0.1057 9 34.3 1.4 3.52 182 0.481 0.254 3.4 6.9 6.9 8.03 0.615 3.4 7.2 7.2 3678760 130.12 6485150 850 28.17 24.5	0.1057 9 34.5 1.4 3.47 182 1.033 3.12 0.239 3.4 6.9 7.56 0.579 3.4 7.2 7.2 7.2 3634340 128.55 6429200 850 28.27 24.5 150	0.1057 9 34.9 1.4 3.51 182 1.098 3.15 0.241 3.4 6.9 7.64 0.585 3.4 7.2 7.2 7.2 7.2 3653090 129.21 6468540 6468540 24.5 150	0.1058 9 35.7 1.4 3.52 1820 0.602 3.24 0.248 3.24 0.248 3.4 6.9 6.9 7.86 0.602 3.4 7.2 7.2 3575710 126.48 6371540 850 850 28.48 24.5 150	0.1057 9 31.8 1.4 3.17 182 0.921 2.78 0.213 3.4 6.9 6.9 6.75 0.517 3.4 7.1 7.1 3318790 117.39 5883390 5895 5883390 5895 5895 5805 5905 505 505 505 505 505 505	0.1057 9 33.3 1.4 3.31 182 1.045 2.94 0.225 3.4 0.225 3.4 6.9 7.12 0.545 3.4 7.2 7.2 7.2 3450630 122.05 6120090 6120090 6120090 6120090 6120050 6120050 6120050 6120050 6120050 6120050 612050 7.22 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.	0.1057 9 35.8 1.4 3.52 182 0.246 3.4 6.9 7.8 0.59 7.8 0.59 7.8 0.59 7.8 0.59 7.8 0.59 7.8 0.59 7.8 0.52 10 2.46 41 6372270 850 28.50 29.50 29.50 20.50 2	256.8 0.1055 9 36 1.4 3.52 1.82 0.786 3.3 0.786 3.3 0.786 3.3 0.786 9 8 0.612 3.4 7.2 7.2 3516680 124.39 6283790 28.56 24.5 150	258.8 0.1057 9 36.5 1.4 3.56 182 0.890 3.33 0.255 3.4 6.9 8.07 0.618 3.4 7.2 7.2 3400080 120.26 6077840 28.55 150	180.4 0.1055 9 27.8 182 0.769 2.32 0.769 2.32 0.769 2.32 0.769 2.32 0.769 2.32 0.769 2.32 0.769 2.32 0.769 2.32 0.769 2.32 0.761 2.32 0.71 2.3550 2.32 2.32 0.30 2.32 2.32 0.431 2.42 2.525 2.522 2.525 2.522 2.525 2.522 2.525 2.522 2.525 2.522 2.525 2.522 2.525 2.522 2.525 2.522 2.525 2.522 2.525 2.522 2.525 2.522 2.525 2.522 2.525 2.555 2.5	188.7 0.1057 9 29.1 1.4 2.88 182 0.973 2.43 0.186 3.4 6.9 5.88 0.451 3.4 7.1 7.1 7.1 2901740 102.64 5147620 850 28.5 24.5 150	203.3 0.1056 9 31.5 1.4 3.07 182 1.075 2.62 0.2 3.4 6.9 6.35 0.486 3.4 7.1 7.1 2932000 103.71 224550 28.50 28.50 24.5 150	208.7 9 9 32.3 1.4 313 182 0.640 2.68 0.205 3.4 6.9 6.51 0.498 3.4 7.1 7.1 7.1 2886950 102.11 5159170 102.11 5159170 28.50 28.50 24.5 150	0.1057 9 31.9 1.4 3.09 182 0.799 2.72 0.208 3.4 5.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6	0.1057 9 25.4 1.4 2.52 182 0.699 2.11 0.162 3.4 6.8 6.8 6.8 5.12 0.392 3.4 7 7 7 2632870 <b>93.13</b> 4669870 850 28.34 24.5 150	171.4 0.1057 9 26.1 1.4 2.59 1.59 1.2 0.803 2.2 0.169 3.4 6.8 6.8 6.8 5.34 0.409 3.4 7 7 2690300 95.16 4773650 2850	184.4 0.1057 9 28.4 1.4 2.77 1.066 2.37 0.182 3.4 6.9 5.75 0.44 3.4 7.1 7.1 2711890 95.92 4837400 850 28.51 150	0.1057 9 28.9 1.4 2.8 182 0.480 0.186 3.4 6.9 5.9 0.452 3.4 6.9 5.9 0.452 3.4 7.1 7.1 7.1 2671180 94.48 4775050 28.57 24.5 150	0.1056 9 28.5 14 2.76 182 0.658 3.4 6.9 5.96 0.456 9 9 0.456 3.4 7.1 7.1 7.1 2612200 92.40 4672020 4672020 4672020 150	0.1055 9 23.5 1.4 2.32 1.29 0.593 1.79 0.137 3.4 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8	0.1056 9 23.6 1.4 2.32 182 0.730 1.84 0.141 3.4 6.8 6.8 4.45 0.341 3.4 7 7 7 2417090 85,49 4292390 2850 28,59 24.5 150	0.056 9 23.7 1.4 2.31 2.31 2.868 0.868 3.4 4.68 0.358 3.4 4.68 0.358 3.4 7 7 7 2365180 850 850 850 28.53 24.5 150	0.1057 9 23.9 1.4 2.31 182 1.94 1.94 1.94 1.94 0.152 3.4 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8	0 1056 9 23.8 1.4 2.31 182 2.02 0.155 3.4 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8
NOV AS NO2 CO CO CO VOC Formaldehyde Formaldehyde SOX mass flow rate (as SO2) Sufur Mass ak T2SO4 Filterable Particulates Total Particulates PM10/2.5 SOX mass flow rate (as SO2) Sufur Mass ak T2SO4 Filterable Particulates Total Particulates PM10/2.5 Stack Exit Conditions (Includes Temper Exhaust Cas Stack Velocity, three Exhaust Cas Stack Velocity, three Exhaust Cas Stack Velocity, three Stack Mass flow, per stack Stack Kolecular Weight Stack Kolecular Weight Stack Keight Above Grade	b/NMMBtu ppmvd ib/hr ppmvv ib/hr pb/vd @ 15% 02 ib/h ib/hr ib/h ib/h ib/h ib/hr ib/hr ib/hr ib/hr ib/h ib/h ib/h ib/h ib/h ib/h ib/h	0.1058 9 34.2 1.4 3.53 1.82 1.07 3.31 0.254 3.4 6.9 6.9 8.03 0.615 3.4 7.2 7.2 3696340 130.74 6508120 850 28.14 24.5 150 Case 1	0.1057 9 34.3 1.4 3.52 1.82 0.481 3.31 0.254 3.4 6.9 6.9 8.03 0.615 3.4 7.2 3678760 130.12 6485150 88.17 28.17 24.5 150 Case 7	0.1057 9 34.5 1.4 3.47 182 1.033 3.12 0.239 3.4 6.9 6.9 7.56 0.579 3.4 7.2 3634340 128.55 6429200 850 28.27 24.5 150	0.1057 9 34.9 1.4 3.51 182 1.928 1.928 1.928 1.928 1.928 1.92 6.9 7.64 0.585 3.4 7.2 3.65 3.9 7.2 3.65 3.900 129.21 6468540 850 28.30 24.5 150 28.30 24.5 150 28.30 24.5 150 28.30 28.30 28.5 150 28.30 28.30 28.5 150 28.30 28.5 28.5 28.5 28.5 28.5 28.5 28.5 28.5	0.1058 9 33.7 1.4 3.52 182 0.608 3.24 0.248 3.4 6.9 7.8 6.9 7.86 0.602 3.4 7.2 3575710 126.48 6371540 8575710 126.48 6371540 85.48 24.5 150 Case 13	0.1057 9 31.8 1.4 3.17 182 0.213 3.4 6.9 6.75 0.517 3.4 7.1 3318790 117.39 5883390 850 28.33 24.5 150 Case 3	0.1057 9 33.3 1.4 3.31 182 1.045 2.94 0.225 3.4 6.9 7.12 0.545 3.4 7.2 3450630 122.05 6120090 850 28.34 24.5 150 Case 9	0.1057 9 35.8 1.4 3.52 182 0.846 3.4 5.9 6.9 7.8 0.597 3.4 7.2 3573700 126.41 6372270 85723700 28.50 28.50 28.50 28.50 28.50 28.51 150	256.8 0.1058 9 36 1.4 3.52 1.82 0.786 0.786 0.753 3.4 6.9 8 0.615 3.4 7.2 3.4 7.2 3.4 7.2 3.4 7.2 3.4 7.2 3.4 6.9 8 0.615 3.4 7.2 3.4 7.2 3.5 2.3.4 7.2 3.4 7.2 3.5 2.3.4 7.2 3.4 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.2	258.8 0.057 9 36.5 1.4 3.56 182 0.890 3.33 0.255 3.4 6.9 8.07 0.618 3.4 7.2 7.2 7.2 3400080 120.26 6077840 857 28.57 24.5 150 Case 22	180.4 0.1055 9 27.8 1.4 2.76 182 0.769 2.32 0.178 3.4 6.8 5.63 0.431 3.4 7.1 7.1 7.1 7.1 7.1 7.1 7.1 7.1	188.7 9 29.1 1.4 2.88 0.973 2.43 0.186 0.486 0.486 0.486 0.486 0.49 5.88 0.451 3.4 7.1 7.1 7.1 7.1 7.1 7.1 7.1 7.1 7.1 7.1	203.3 0.1056 9 31.5 1.4 3.07 182 1.075 2.62 0.2 0.2 3.4 6.9 6.9 6.9 6.35 0.486 3.4 7.1 7.1 7.1 7.1 7.228550 855 28.55 28.55 28.55 150 28.55 29.55 2	208.7 0.1057 9 32.3 1.4 3.13 182 0.640 2.68 0.205 3.4 6.9 6.51 0.498 6.9 6.51 0.498 6.9 6.51 0.498 7.1 7.1 7.1 7.1 7.1 7.1 7.1 7.1	0.1057 9 31.9 1.4 3.09 182 0.799 2.72 0.208 3.4 6.9 6.6 9.6.9 6.6 9.6.9 6.6 0.505 3.4 7.1 2816420 99.62 5035310 850 28.57 24.5 150	0.1057 9 25.4 2.5.2 182 0.699 2.11 0.162 3.4 6.8 6.8 5.12 0.392 3.4 7 7 2632870 93.13 44669870 850 28.34 24.5 150 Case 5	171.4 0.1057 9 26.1 1.4 2.59 1.59 0.803 2.2 0.169 3.4 6.8 5.34 0.409 3.4 7 7 2.59 3.4 6.8 5.34 0.403 3.4 7 7 2.59 1.59	184.4 0.1057 9 28.4 1.4 2.77 0.182 1.066 2.37 0.182 3.4 6.9 5.75 0.44 3.4 7.1 7.1 7.1 7.1 95.92 4837400 850 28.51 24.5 150 Case 16	0.1057 9 28.9 1.4 2.8 182 0.480 2.43 0.186 3.4 6.9 6.9 5.9 0.452 3.4 7.1 7.1 2671180 94.48 4775050 850 28.57 24.5 150 Case 20	0.1056 9 28.5 1.4 2.76 182 0.658 2.46 0.188 3.4 6.9 6.9 5.96 0.456 0.456 0.456 0.456 0.456 0.456 0.456 0.456 0.456 0.456 0.456 1.7 1 7.1 7.1 7.1 2612200 92.40 4672020 85.8 24.5 150 28.5 150 28.5 24.5 24.5 24.5 24.5 24.5 24.5 24.5 24	0.1055 9 23.5 1.4 2.32 1.82 0.593 1.79 0.137 3.4 6.8 6.8 4.35 0.333 3.4 7 2423440 85.72 4302140 85.72 4302140 28.37 24.5 150 Case 6	0.1056 9 23.6 1.4 2.32 182 0.730 1.84 0.141 3.4 6.8 6.8 4.45 0.341 3.4 7 7 2417090 85.49 4292390 85.49 4292390 85.49 150 28.38 24.5 150	0.1056 9 23.7 1.4 2.31 182 0.868 1.93 0.148 3.4 6.8 0.356 0.359 0.	0.1057 9 23.9 1.4 2.31 182 1.98 0.152 3.4 6.8 6.8 4.81 0.368 3.4 7 7 2340600 82.79 4187740 8570 28.59 24.5 150 Case 21	0 1055 9 33.8 1.4 2.31 1.82 0.491 2.02 0.155 3.4 6.8 4.91 0.376 6.8 4.91 0.376 7 7 7 7 7 7 7 7 7 7 7 7 7
NOX AS NO2 CO CO CO VOC Formaldehyde Formaldehyde SOX mass flow rate (as SO2) Sufur Mat as H2SO4 Filterable Particulates PM10/2.5 SOX mass flow rate (as SO2) Sufur Mat as H2SO4 Filterable Particulates PM10/2.5 SOX mass flow rate (as SO2) Sufur Mat as H2SO4 Filterable Particulates PM10/2.5 Stack Mat Sock Velocity, three Exhaust Vol flow Exhaust Glass Stack Velocity, three Stack Mass flow per stack Stack Temperature Stack Mass Now per stack Stack Height Above Grade ExHAUST ANALYSIS % VOL. Argon	b/NMMBtu ppmvd ib/hr ppmvv ib/hr pb/vd @ 15% 02 ib/h ib/hr ib/h ib/h ib/h ib/hr ib/hr ib/hr ib/hr ib/h ib/h ib/h ib/h ib/h ib/h ib/h	0.1058 9 34.2 1.4 3.53 182 1097 1097 3.31 0.254 3.4 6.9 6.9 8.03 0.615 3.4 7.2 7.2 3696340 130.74 6508120 850 28.14 24.5 150 Case 1 0.87	0.1057 9 34.3 1.4 3.52 182 0.43 0.43 3.31 0.254 3.4 6.9 6.9 8.03 0.615 3.4 7.2 7.2 3678760 130.12 6485150 850 28.17 24.5 150 7 0.86	0.1057 9 34.5 1.4 3.47 182 3.12 0.239 3.4 6.9 6.9 7.56 0.579 3.4 7.2 7.2 7.2 3634340 128.55 6429200 28.57 6429200 28.55 150 28.55 150	0.1057 9 34.9 1.4 3.51 182 3.15 0.241 3.4 6.9 6.9 7.64 0.585 3.4 7.2 7.2 3653090 120,21 6468540 850 28.50 29.50 29.50 29.50 29.50 29.50 29.50 29.50 29.50 29.50 29.50 29.50 20	0.1058 9 35.7 1.4 3.52 182 0.24 0.248 3.24 0.248 3.4 6.9 6.9 7.86 0.602 3.4 7.2 7.2 3575710 126.48 6371540 6371540 6371540 128.48 24.5 150 Case 13 0.89	0.057 9 31.8 1.4 3.17 182 0.213 3.4 6.9 6.75 0.517 3.4 6.9 6.75 0.517 3.4 7.1 7.1 7.1 3318790 117.39 5883390 5883390 5883324.5 150	0.057 9 33.3 1.4 3.31 182 2.94 0.225 3.4 6.9 6.9 7.12 0.545 3.4 7.2 7.2 7.2 3450630 122.05 6120090 6120090 6120090 628.34 24.5 150	0.057 9 35.8 1.4 3.52 0.824 0.824 0.824 0.34 6.9 6.9 6.9 7.8 0.597 3.4 7.2 7.2 3573700 126.41 6372270 126.41 0.89	256.8 0.1058 9 9 14 1.4 3.52 182 0.786 0.253 3.4 6.9 6.9 8 0.612 3.4 7.2 7.2 3516680 124.39 628.370 850 28.56 24.5 150 Case 150 8 0.9	258.8 0.1057 9 36.5 1.4 3.56 182 0.890 3.33 0.255 3.4 6.9 8.07 0.618 3.4 7.2 7.2 340080 120.26 6077840 6078840 24.5 150 Case 22 0.9	180.4 0.1055 9 27.8 182 0.769 2.32 0.769 2.32 0.769 2.32 0.769 2.32 0.769 2.32 0.769 2.32 0.769 2.32 0.769 2.32 0.763 3.4 6.8 6.8 6.8 0.4311 3.4 7.1 7.1 7.1 7.1 2835650 100 2023 28.5 150 2023 28.5 150 2023 28.5 150 2023 28.5 150 2023 20.5 150 2023 2025 20	188.7 0.1057 9 20.1 1.4 2.83 182 0.973 2.43 0.186 0.186 0.186 0.451 3.4 6.9 5.88 0.451 3.4 7.1 7.1 2901740 100.564 5147620 28.35 24.5 150 0.88	203.3 0.1056 9 31.5 1.4 3.07 182 1.075 2.62 0.2 3.4 6.9 6.35 0.486 3.4 7.1 7.1 2932000 103.71 5228550 850 2850 2850 24.5 150 160 2850 24.5 150 160 2850 24.5 150 150 150 160 160 160 160 160 160 160 16	208.7 0.1057 9 32.3 1.4 3.13 182 0.640 2.68 0.205 3.4 6.9 6.51 0.498 3.4 7.1 7.1 7.1 2886950 102.11 5159170 850 28.56 24.5 150 155 155 155 155 155 155 15	0.1057 9 31.9 1.4 3.09 182 0.799 2.72 0.208 3.4 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.505 3.4 7.1 7.1 7.1 2816420 9.62 5035310 5035310 5035310 5035310 5035510 503510 5055 503510 5055 503510 5055 503510 5055 503510 5055 5055	0.1057 9 25.4 1.4 2.52 182 0.699 2.11 0.162 3.4 6.8 6.8 6.8 6.8 5.12 0.392 3.4 7 7 7 2632870 93.14 4698370 4669870 28.34 24.5 150 150 28.5 150 28.5 150 28.5 150 28.5 150 28.5 150 28.5 28.5 150 28.5 150 28.5 150 28.5 28.5 28.5 28.5 28.5 28.5 28.5 28.5	171.4 0.1057 9 26.1 1.4 2.59 0.803 2.2 0.169 3.4 6.8 6.8 5.34 0.409 3.4 7 7 2590300 95.16 4773650 850 28.36 24.5 150 (Case 11 0.88	184.4 0.1057 9.4 1.4 1.7 182 1.066 2.37 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.19 5.75 0.44 3.4 6.9 5.75 0.44 3.4 7.1 7.1 2711890 0.59 2.85 150 2.85 150 2.85 150 2.85 150 2.85 150 2.85 150 2.85 150 2.45 150 2.45 150 2.45 150 150 150 150 150 150 150 15	0.1057 9 28.9 1.4 2.8 182 0.4 2.4 3.4 4.9 6.9 5.9 0.452 3.4 7.1 7.1 2671180 94.48 477505 28.57 150 24.5 150 Case 20 0.91	0.1056 9 28.5 1.4 2.76 182 0.658 0.658 0.658 0.658 0.658 0.456 3.4 6.9 5.96 0.456 3.4 7.1 7.1 7.1 2612200 4672020 4672020 4672020 4672020 150 28.5 150 28.5 150 28.5 150 28.5 14 20 28.5 14 20 28.5 14 20 28.5 14 20 28.5 14 20 20 20 20 20 20 20 20 20 20 20 20 20	0.1055 9 23.5 1.4 2.32 182 0.5 3.4 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 0.333 3.4 7 7 7 2423440 850 28.37 2425 150 28.5 150 28.5 150 28.5 150 28.5 150 28.5 1.7 9 0.137 24.5 24.5 1.7 9 0.137 1.7 9 0.12 1.7 9 0.12 1.7 9 0.12 1.7 9 0.12 1.7 9 0.12 1.7 9 0.12 1.7 9 0.12 1.7 9 0.12 1.7 9 0 1.7 9 0 1.7 9 0 1.7 9 0 1.7 9 0 1.7 9 1.5 9 1.7 9 1.7 9 1.7 9 1.7 9 1.7 9 1.5 9 1.7 9 7 7 7 9 1.7 1.7 9 1.7 9 1.7 9 1.7 9 1.7 9 1.7 9 1.7 9 1.7 9 1.7 9 1.7 9 1.7 9 1.7 9 1.7 9 1.7 9 1.7 9 1.7 9 1.7 1	0.1056 9 23.6 1.4 2.32 182 0.34 0.141 3.4 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8	0.056 9 23.7 1.4 2.31 182 0.868 0.48 0.48 0.358 3.4 7 7 7 2365180 82.65 4222250 422255 150 28.53 150 Case 17 0.89	0.1057 9 23.9 1.4 2.31 182 1.98 0.152 3.4 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8	0 1056 9 9 23.8 1.4 2.31 182 2.02 0.155 3.4 6.8 6.8 6.8 6.8 4.91 0.376 3.4 7 7 2299250 <b>81</b> 33 4115830 4115830 28.61 24.5 150 Case 25 0.9
NOX AS NO2 CO CO CO CO VOC Formaldehyde Formaldehyde SOX mass flow rate (as SO2) Sufur Mat as H2SO4 Filterable Particulates Total Particulates PMI0/2.5 SOX mass flow rate (as SO2) Sufur Mat as H2SO4 Filterable Particulates PMI0/2.5 Stack Edit Conditions (Includes Temper Exhaust Vol flow Exhaust Sellis MixNoby, Nixoe Stack Mass flow, per stack Stack Temperture Stack Molecular Weight Stack Diameter Stack Molecular Weight Stack Diameter Stack Molecular Weight Stack Diameter Stack Molecular Weight Stack Diameter Exhaust Son Kove Grade EXHAUST ANALYSIS % VOL. Argon	b/NMMBtu ppmvd ib/hr ppmvv ib/hr pb/vd @ 15% 02 ib/h ib/hr ib/h ib/h ib/h ib/hr ib/hr ib/hr ib/hr ib/h ib/h ib/h ib/h ib/h ib/h ib/h	0.1058 9 34.2 1.4 3.53 182 1.097 3.31 0.254 3.4 6.9 6.9 6.9 6.9 8.03 0.615 3.4 7.2 7.2 7.2 850 6508120 850 28.14 24.5 150 150 Case 1 0.87 7.2.59	0 1057 9 34.3 3.52 162 0.481 3.31 0.254 3.4 6.9 6.9 6.9 8.03 0.615 3.4 7.2 7.2 3678760 130.12 6455150 850 850 130.12 6455150 8517 24.5 155	0 1057 9 9 1.4 1.347 1.633 3.12 0.239 3.4 6.9 7.56 0.579 3.4 7.2 7.2 3634340 128.55 6420200 28.27 24.5 6420200 28.27 24.5 28.27 24.5 28.57 23.53	0.1057 9 9 1.4 3.5 1.5 1.22 1.028 1.024 1.02 6.9 6.9 7.64 0.585 3.4 7.2 7.2 3653090 129.21 6468540 850 28.30 24.5 150 Case 8 0.88 73.73	0.1058 9 3.5.7 1.4 3.52 182 0.608 3.24 0.248 3.4 6.9 6.9 7.86 0.602 3.4 7.2 7.2 3575710 126.48 6371540 850 28.48 24.5 155 1540 850 850 850 850 850 850 850 850 850 85	0.057 9 31.8 3.17 3.17 122 0.921 2.78 0.213 3.4 6.9 6.75 0.517 3.4 7.1 7.1 7.1 7.1 7.1 7.1 7.1 7.1 7.1 7.1	0.057 9 33.3 1.4 3.31 182 1.045 0.225 3.4 6.9 6.9 7.12 0.545 3.4 7.2 0.545 3.4 7.2 3450630 122.05 6120090 850 28.34 24.5 5150 28.34 24.5 50 28.34 24.5 50 28.34 24.5 50 28.34 24.5 50 28.34 24.5 50 28.34 24.5 50 28.34 24.5 50 28.34 24.5 50 28.34 24.5 50 28.34 24.5 50 28.34 24.5 50 28.34 24.5 50 28.5 50 28.34 24.5 50 29.5 50 28.5 50 29.5 50 20.5 50 50 20.5 50 50 20.5 50 20.5 50 20.5 50 50 20.5 50 50 50 50 50 50 50 50 50 50 50 50 50	0.1057 9 35.8 1.4 3.52 0.484 3.22 0.484 3.22 0.484 3.22 0.484 3.22 0.484 3.2 0.484 6.9 7.8 0.597 3.4 6.9 7.8 0.597 3.4 7.2 7.2 7.2 3573700 12641 6372270 850 28.50 29.50 28.50 29.50 29.50 29.50 29.50 29.50 29.50 29.50 29.50 29.50 29.50 29.50 29.50 29.50 29.50 29.50 29.50 20.50	256.8 0.1055 9 36 1.4 3.52 182 0.786 3.3 0.253 3.4 6.9 6.9 8 0.612 3.4 7.2 7.2 3.516680 124.39 6.83790 850 28.56 24.5 150 28.56 24.5 150	258.8 0.057 9 36.5 1.4 3.56 182 0.255 3.4 6.9 8.07 0.618 3.4 7.2 7.2 7.2 3400080 120.26 6077840 850 28.57 24.5 150	180.4 0.1055 9 27.8 1.4 2.76 182 0.769 2.32 0.178 3.4 6.8 5.63 0.431 3.4 7.1 7.1 2.835650 100.30 5028380 850 28.34 24.5 150 Case 4 0.88 73.99	188.7 9.0.1057 9 29.1 1.4 2.82 182 0.973 2.43 0.186 0.486 0.486 0.486 0.486 0.486 0.487 0.48 0.451 3.4 7.1 7.1 7.1 7.1 7.1 7.1 7.1 2901740 102.64 5147620 88.35 24.5 24.5 150 Case 10 0.88	203.3 0.1056 9 31.5 1.4 3.07 182 0.2 0.2 0.2 0.2 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4	208.7 0.1057 9 32.3 1.4 3.12 0.640 2.68 0.205 3.4 6.9 6.9 6.9 6.9 6.51 0.498 3.4 7.1 7.1 7.1 2886950 102.11 5159170 850 28.56 24.5 150 Case 19 0.9 75.63	0.1057 9 31.9 1.4 3.09 1.2 0.799 2.72 0.208 3.4 6.9 6.6 0.505 3.4 7.1 7.1 7.1 7.1 7.1 7.1 7.1 7.1 7.1 7.1	0.1057 9 25.4 1.4 2.52 182 0.699 2.11 0.162 3.4 6.8 6.8 6.8 6.8 6.8 5.12 0.392 3.4 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	171.4 0.1057 9 26.1 1.4 2.59 1.4 2.59 3.4 6.8 5.34 0.409 3.4 7 7 7 2690300 95.16 4773650 85.24 5.34 0.43,4 7 7 2690300 05.16 473650 28.36 150 Case 11 0.88 7.4.12	184.4 0.1057 9 28.4 1.4 2.77 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.19 5.75 0.44 3.4 7.1 7.1 7.1 2711890 95.92 4.837400 850 28.51 24.5 150 Case 16 0.9 75.21	0.1057 9 9 1.4 2.8 9 2.8 9 0.480 0.480 0.480 0.480 6.9 6.9 5.9 0.452 3.4 7.1 7.1 2671180 94.48 4775050 850 28.57 24.5 150 Case 20 0.91	0.1056 9 28.5 1.4 2.76 182 0.658 2.46 0.188 3.4 6.9 5.96 0.456 3.4 6.9 5.96 0.456 3.4 7.1 7.1 7.1 7.1 2612200 92.40 4672020 82.85 28.58 24.5 150 28.58 24.5 0.9 75.79	0 1055 9 22.5 14 2.32 182 0.593 1.79 0.137 3.4 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8	0.1056 9 23.6 1.4 2.32 182 0.730 1.84 0.141 3.4 6.8 6.8 4.45 0.341 3.4 7 7 2417090 85.49 4292390 85.49 4292390 85.49 4292390 85.49 28.38 24.5 150 Case 12 0.88	0 1056 9 23.7 1.4 2.31 102 0.868 1.93 0.148 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.	0.1057 9 23.9 1.4 2.31 1.094 1.98 0.152 3.4 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8	0 1056 9 33.8 1.4 2.31 2.02 0.491 2.02 0.491 2.02 0.491 3.4 6.8 4.91 0.376 6.8 4.91 0.376 6.8 4.91 0.376 7 7 7 7 7 7 7 7 2299250 81 33 415830 850 28.61 24.5 150 28.61 24.5 150 28.61 24.5 150 28.61 24.5 150 28.61 28.5 150 28.61 28.5 150 28.61 28.5 28.61 28.5 28.61 28.5 28.61 28.5 28.61 28.5 28.61 28.5 28.61 28.5 28.61 28.5 28.5 28.5 28.5 28.5 28.5 28.5 28.5
NOV AS NO2 CO CO CO VOC Formaldehyde Formaldehyde Formaldehyde SOx mass flow rate (as SO2) Sufur Mist as H2SO4 Filterable Particulates PM10/2.5 SOx mass flow rate (as SO2) Sufur Mist as H2SO4 Filterable Particulates PM10/2.5 Stark Mist flow Filterable Particulates PM10/2.5 Stark Mist flow Exhaust Glas Black Valoxin, thise Stark Mass flow, per stark Stark Mist Diameter Stark Mass Diameter Stark Diameter Stark Diameter Stark	b/NMMBtu ppmvd ib/hr ppmvv ib/hr pb/vd @ 15% O2 ib/h ib/hr ib/h ib/h ib/h ib/h ib/hr ib/hr ib/hr ib/h ib/h ib/h ib/h ib/h ib/h ib/h	0.1058 9 34.2 1.4 3.53 182 1.027 3.31 0.254 3.4 6.9 6.9 8.03 0.615 3.4 7.2 7.2 3696340 100.74 6508120 6508120 28.14 0.87 72.59 14.01	0.1057 9 34.3 1.4 3.52 182 0.81 3.31 0.254 3.4 6.9 6.9 8.03 0.615 3.4 7.2 7.2 3678760 130.12 6485150 28.17 24.5 150 28.17 24.5 10.86 7.2.86 14.067	0.1057 9 34.5 1.4 3.47 182 0.339 3.4 6.9 6.9 6.9 6.9 7.56 0.579 3.4 7.2 7.2 3634340 128.55 6429200 880 28.57 6429200 28.55 150 Case 2 0.87 73.53 14.5	0.057 9 34.9 1.4 3.51 182 1098 0.998 1.098 3.15 0.241 3.4 6.9 6.9 7.64 0.585 3.4 7.2 7.2 3653090 129,21 6468540 24.5 150 24.5 24.5 150 24.5 25 24.5 25 24.5 25 24.5 25 24.5 25 24.5 24.	0.1058 9 9 35.7 1.4 3.52 182 0.24 0.248 3.24 0.248 3.24 0.248 3.4 6.9 6.9 7.86 0.602 3.4 7.2 7.2 3575710 126.48 6371540 6371540 6371540 637154 126.48 150 126.48 150 128.48 150 158.48 158 158 158 158 158 158 158 158 158 15	0.057 9 31.8 1.4 3.17 182 0.278 0.213 3.4 6.9 6.75 0.517 3.4 7.1 7.1 7.1 3318790 117.39 5883390 5883390 5883390 28.33 24.5 150 6.88 73.94 14.73	0.057 9 33.3 1.4 3.31 182 2.94 0.225 3.4 6.9 6.9 6.9 6.9 6.9 7.12 0.545 3.4 7.2 7.2 3450630 122.05 6120090 6120090 6120090 6120090 0.88 74.05 28.34 24.5 150 614.67	0.057 9 35.8 1.4 3.52 1.82 0.84 0.84 0.597 3.4 6.9 6.9 6.9 6.9 7.8 0.597 3.4 7.2 7.2 3573700 126.41 6372270 28.50 28.50 28.50 28.51 10.68 75.15 14.67	256.8 0.1058 9 36 1.4 3.52 1.82 0.786 3.3 0.253 3.4 6.9 6.9 8 0.612 3.4 7.2 7.2 3516680 124.39 6283790 28.56 24.5 150 28.56	258.8 0.1057 9 36.5 1.4 3.56 182 0.890 3.33 0.255 3.4 6.9 6.9 8.07 0.618 3.4 7.2 7.2 3400080 120.36 6077840 150 120.36 6077840 150 28.57 24.5 150 28.57 24.5 150	180.4 0.1056 9 27.8 1.4 2.76 0.178 0.431 0.431 0.431 0.431 0.431 0.431 0.431 0.230 0.	188.7 0.1057 9 20.1 1.4 2.83 182 0.973 2.43 0.186 0.186 0.186 0.186 0.451 3.4 6.9 5.88 0.451 3.4 7.1 7.1 2901740 100.64 5147620 28.55 24.5 150 0.88 74.08 150 0.88 74.08 147 150 150 150 150 150 150 150 150	203.3 0.1056 9 31.5 1.4 30.7 1.2 2.62 0.2 3.4 6.9 6.3 0.486 0.486 0.486 0.486 0.486 0.486 0.485	208.7 0.1057 9 32.3 1.4 3.13 122 0.640 2.68 0.205 3.4 6.9 6.51 0.498 3.4 7.1 7.1 2886950 102.11 5159170 102.11 5159170 105.15 150 28.56 24.5 150 150 28.56 24.5 150 150 150 150 150 150 150 15	0.1057 9 31.9 1.4 3.09 182 0.799 2.72 0.208 3.4 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9	0.1057 9 25.4 1.4 2.52 182 0.699 2.11 0.162 3.4 6.8 6.8 6.8 6.8 5.12 0.392 3.4 7 7 7 2632870 93.13 4669870 28.54 150 28.54 150 28.55 0.88 74.03 14.97	171.4 0.1057 9 26.1 1.4 2.5 0.803 2.2 0.169 3.4 6.8 6.8 5.34 0.409 3.4 0.409 3.4 7 7 2690300 95.16 4773650 28.50 28.55 150 24.5 150 (Case 11 0.88 7.4.12 (Case 11 0.88 7.4 (Case 11 0.88 7.5 (Case 11 0.88 7.5 (Case 11 0.88 7.5 (Case 11 0.88 7.5 (Case 11 0.88 7.4 (Case 11 0.88 7.5 (Case 11 0.88 (Case 11 0.88 (Case 11 0.88 (Case 11 0.88 (Case 11 (Case 11	184.4 0.1057 9 9 4.4 1.4 2.7 182 1.066 2.3 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.19 5.75 0.44 3.4 7.1 7.1 2711890 95.92 4837400 850 28.51 150 150 150 150 150 150 150 1	0.1057 9 28.9 1.4 2.8 182 0.48 2.43 0.186 3.4 6.9 6.9 5.9 0.452 3.4 7.1 7.1 2671180 94.48 4775050 28.57 24.5 150 Case 20 0.91 75.67	0.1056 9 28.5 1.4 2.76 182 0.658 0.658 0.658 0.658 0.658 0.456 3.4 7.1 7.1 2612200 92.40 4672020 28.58 28.5 150 Case 24 0.9 75.79 14.6	0.0055 9 23.5 1.4 2.32 182 0.593 1.79 0.137 4.6 8 4.35 0.333 3.4 7 7 2423440 850 2423440 850 2837 24.5 150 Case 6 0.89 7,4.18	0.1056 9 23.6 1.4 2.32 182 0.34 0.141 3.4 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8	0.056 9 23.7 1.4 2.31 1826 0.648 0.448 3.4 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8	0.1057 9 9 1.4 2.3.9 1.4 2.31 182 1.98 0.152 3.4 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8	0 1056 9 9 23.8 1.4 2.31 2.31 2.02 0.155 3.4 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8

#### Table B-2: Natural Gas with 10% Hydrogen Performance Data

Stack Ext Ensions (per unit)       Very	13.7 2 6.7 1 1.9 5 10.2 91 0.326 0.326 167619 114.8 1	2.5 14 2 6.8 1 2 5 10.4 91 0.33 17142 115.2
NOC volume fraction       opt       2.5<	13.7 2 6.7 1 1.9 5 10.2 91 0.326 0.326 167619 114.8 1	14 2 6.8 1 2 5 10.4 91 0.33 17142 115.2
Nox mass from rate (as NO2)       [h/m]       2.9       2.9       2.1       2.2       2.9       2.0	13.7 2 6.7 1 1.9 5 10.2 91 0.326 0.326 167619 114.8 1	14 2 6.8 1 2 5 10.4 91 0.33 17142 115.2
CO Volume fraction, dry, at 15 % Q2       ppm       2 <th2< th="">       2       2</th2<>	2 6.7 1 1.9 5 10.2 91 0.326 167619 114.8	2 6.8 1 2 5 10.4 91 0.33 17142 115.2
CO         Mark         IL2         IL2 <thil2< th=""> <thil2< th=""> <thil2< th=""></thil2<></thil2<></thil2<>	1 1.9 5 10.2 91 0.326 167619 114.8 1	1 2 5 10.4 91 0.33 17142 115.2
VOC Volume fraction, dy, at 15% 0.2       ppm       1	1 1.9 5 10.2 91 0.326 167619 114.8 1	1 2 5 10.4 91 0.33 17142 115.2
VOC mass flow rate (as methane)       U/hr       3.2       3.2       3.2       3.2       3.2       2.7       2.8       3.1       3.2       3.2       3.2       2.3       2.3       2.5       2.6       2.6       2.6       2.6       2.6       2.6       2.5       5.5	1.9 5 10.2 91 0.326 0 167619 1 114.8 1	2 5 10.4 91 0.333 17142 115.2
NH3 Volume fraction, dy, at 15 % 0 pm       5	5 10.2 91 0.326 0 167619 1 114.8 1	5 10.4 91 0.333 17142 115.2
NH3 masfrow rate       Ibh       17       17       16       16.1       16.2       15.1       15.0	91 0.326 0 167619 1 114.8 1	10.4 91 0.333 17142 115.3
formaldehyde       pbvd@15%02       91 <th< td=""><td>0.326 0 167619 1 114.8 1</td><td>0.333 17142 115.2</td></th<>	0.326 0 167619 1 114.8 1	0.333 17142 115.2
Formatchyde         Ibh         0.54         0.54         0.54         0.54         0.54         0.54         0.43         0.43         0.54         0.34	0.326 0 167619 1 114.8 1	0.333 17142 115.2
Stack CO2 mass flow rate       Ibh       28000       28000       28000       28000       26667       27426       29238       24857       27238       27904       28057       2105       1500<	167619 1 114.8 1	17142 115.2
Stack Co2 mass from rate (as SO2)       bMMBte UHPY       1150 <th< td=""><td>114.8 1</td><td>115.2</td></th<>	114.8 1	115.2
DO2       bMMh       1153       1149       1160       1134       1161       1159       1134       112       112       1141       1142       1148       1270       1244       1194       1184       1204       1159       1159       1154       1124       1148       1270       1244       1194       1184       1204       1184       1204       1194       1184       1204       1184       1204       1194       1184       1204       1194       1184       1204       1194       1184       1204       1194       1184       1204       1194       1184       1204       1194       1184       1204       1194       1184       1204       1194       1184       1204       1194       1184       1204       1194       1184       1204       1194       1184       1204       1184       1204       1184       1204       1184       1204       1184       1204       1184       1204       1184       1204       1184       1204       1184       1204       1204       1204       1204       1204       1204       1204       1204       1204       1204       1204       1204       1204       1204       1204       1204       1204 <t< td=""><td></td><td></td></t<>		
SOx mass flow rate (as SO2)       bh       33       33       31       3.2       3.2       2.8       2.9       3.2       3.3       3.3       3.2       2.4       2.6       2.7       2.7       2.1       2.2       2.4       2.5       1.8       1.9         SOX       bh/Mebu       0.0014       0		1371
SOx mass flow rate (as SO2)         bh         3.3         3.3         3.1         3.2         2.8         2.9         3.2         3.3         3.3         3.2         2.4         2.4         2.6         2.7         2.7         2.1         2.2         2.4         2.5         1.8         1.8         1.9           SOX         bit/         0.0014		
SOX         IbMMBtu         0.0014         0.0014         0.0014         0.0013         0.0014         0.0013         0.0014         0.0013         0.0014         0.0013         0.0014         0.0013         0.0014         0.0013         0.0014         0.0014         0.0013         0.0014         0.0014         0.0013         0.0013         0.0014         0.0014         0.0014         0.0013         0.0014         0.0014         0.0013         0.0014         0.0013         0.0014         0.0014         0.0013         0.0014         0.0014         0.0013         0.0014         0.0013         0.0014         0.0014         0.0013         0.0014         0.0013         0.0014         0.0013         0.0014         0.0014         0.0013         0.0014         0.0014         0.0013         0.0014         0.0013         0.0014         0.0013         0.0014         0.0013         0.0014         0.0013         0.0014         0.0013         0.0014         0.0013         0.0014         0.0013         0.0014         0.0013         0.0014         0.0013         0.0014         0.0013         0.0014         0.0013         0.0014         0.0013         0.0014         0.0013         0.0014         0.0013         0.0014         0.0013         0.0014         0.0013 <td></td> <td></td>		
Suffur Mistas H2804 lb/h 2.2 2.2 2.1 2.1 2.2 1.9 2 2.2 2.3 1.6 1.6 1.8 1.8 1.8 1.4 1.5 1.6 1.6 1.7 1.2 1.2 1.3	2	2
	0.0014 0	0.001
	1.3	1.4
Sulfur Mist as H2SO4 Ib/MMBtu 0.0009	0.0009 0	0.000
Filterable Particulates lb/h 7.4 7.4 7.2 7.2 7.2 6.9 7.0 7.2 7.2 7.0 6.4 6.4 6.4 6.3 6.3 6.3 6.3 6.3 6.3 6.2 6.2 6.0 6.0 6.0	6.1	6.0
Filterable Particulates b/M/MBtu 0.0030 0.0031 0.0031 0.0031 0.0034 0.0033 0.0030 0.0030 0.0029 0.0038 0.0035 0.0033 0.0032 0.0032 0.0040 0.0039 0.0036 0.0035 0.0034 0.0044 0.0043	0.0041 0	0.004
Total Particulates lbh 14.2 14.1 13.9 13.9 13.7 13.5 13.6 13.6 13.5 12.9 12.8 12.6 12.2 11.8 11.7 12.8 12.2 12 12 11.9 12.4 12.4 12.3	12.2	12.1
PM10/2.5 lbh 14.2 14.1 13.9 13.9 13.7 13.5 13.6 13.5 13.9 12.8 12.6 12.2 11.8 11.7 12.8 12.2 12 12 11.9 12.4 12.4 12.3	12.2	12.1
PM10/2.5 Ib/MMBtu 0.0058 0.0058 0.0058 0.0061 0.0060 0.0057 0.0066 0.0053 0.0057 0.0056 0.0053 0.0070 0.0053 0.0070 0.0063 0.0058 0.0058 0.0079 0.0070 0.0067 0.0066 0.0094 0.0092 0.0087		0.008
1.0 grains/100 SCF		
SOx mass flow rate (as SO2) bbh 8.0 8.0 7.6 7.6 7.9 6.7 7.1 7.8 8.0 8.1 5.6 5.9 6.3 6.5 6.6 5.1 5.3 5.8 5.9 6.0 4.3 4.5 4.7	4.8	4.9
SOx ib/MMBtu 0.0033	0.0033 0	0.003
Sulfur Mist as H2SO4 lb/h 5.4 5.4 5.1 5.2 5.3 4.6 4.8 5.3 5.4 5.5 3.8 4 4.3 4.4 4.5 3.5 3.6 3.9 4 4 2.9 3 3.2	3.3	3.3
Sulfur Mist as H2SO4 Ib/MMBtu 0.0022	0.0023 0	0.002
Filterable Particulates lb/h 11.8 11.3 11.4 11.4 10.6 10.9 11.3 11.4 11.2 9.42 9.54 9.54 9.59 9.61 9.06 9.23 9.26 9.24 9.26 8.34 8.42 8.54	8.6	8.61
Filterable Particulates Ib/MMBtu 0.0048 0.0048 0.0049 0.0049 0.0048 0.0052 0.0050 0.0048 0.0047 0.0046 0.0055 0.0053 0.0050 0.0049 0.0048 0.0057 0.0053 0.0052 0.0051 0.0063 0.0062 0.0060	0.0059 0	0.005
Total Particulates lb/h 19.5 19.5 18.9 18.9 18.7 18 18.3 18.6 18.5 17.8 16.4 16.4 16 15.6 15.5 16.1 16.3 15.8 15.5 15.4 15.2 15.3 15.3	15.3	15.2
PM10/2.5 lb/h 19.5 19.5 18.9 18.9 18.7 18 18.3 18.6 18.5 17.8 16.4 16.4 16 15.6 15.5 16.1 16.3 15.8 15.5 15.4 15.2 15.3 15.3 15.2 15.4 15.2 15.3 15.3 15.2 15.4 15.2 15.3 15.3 15.3 15.5 15.4 15.2 15.3 15.3 15.3 15.5 15.4 15.2 15.3 15.3 15.5 15.4 15.2 15.3 15.3 15.5 15.4 15.2 15.3 15.5 15.4 15.2 15.3 15.5 15.4 15.2 15.3 15.5 15.4 15.2 15.3 15.5 15.4 15.2 15.3 15.5 15.4 15.2 15.3 15.5 15.4 15.5 15.5	15.3	15.2
PM10/2.5 Ib/MMBru 0.0080 0.0080 0.0082 0.0081 0.0078 0.0088 0.0085 0.0079 0.0076 0.0073 0.0096 0.0092 0.0083 0.0079 0.0077 0.0104 0.0101 0.0091 0.0087 0.0085 0.0115 0.0113 0.0108	0.0105 0	0.010
SOx mass flow rate (as SO2), 20 gr S lb/h 165.00 165 155 160 160 140 145 160 165 165 115 120 130 135 135 105 110 120 120 125 90 90 95	100	100
SOx b/MMBhu 0.0677 0.0676 0.0690 0.0671 0.0684 0.0671 0.0684 0.0671 0.0680 0.0674 0.0673 0.0672 0.0675 0.0684 0.0674 0.0676 0.0678 0.0688 0.0671 0.0691 0.0683 0.0666 0.0669	0.0685 0	0.067
SITE CONDITIONS Units Case 1 Case 2 Case 8 Case 13 Case 3 Case 3 Case 3 Case 4 Case 14 Case 16 Case 22 Case 4 Case 10 Case 15 Case 10 Case 23 Case 5 Case 11 Case 16 Case 20 Case 24 Case 6 Case 12 Case 17	Case 21 Ca	Case 2
Elevation ft 80 80 80 80 80 80 80 80 80 80 80 80 80	80	80
Site Pressure psia 14.658 14.6	14.658 1	14.65
Exhaust Loss in H2O 12.00 @ ISO Conditions		
Humidity 35.00% RH 35.00% RH 35.00% RH 43.00% RH 43.00% RH 43.00% RH 43.00% RH 43.00% RH 50.00% RH 50.00% RH 50.00% RH 50.00% RH 50.00% RH 50.00% RH 43.00% RH 60.00% RH 50.00% RH 50.00% RH 50.00% RH 43.00% RH 43.00% RH 50.00%		F7 00%
Application Air-Cooled Generator	57.00% RH 57.	57.00%
Power Factor (lag) 0.85	57.00% RH 57.	57.00%
Combustion System DLN Combustor	57.00% RH 57.	57.00%

Note: at -10F & RH 57% filter anti-icing will be on, but performance calculation doesn't inlcude impact of filter anti-icing "on"

General Electric Proprietary Information

This document and its contents have been prepared by GE and provided to the recipient for the sole purpose of evaluating the use of GE products in a potential power generation project. Disclosure of this information to any third party, other than a party contractually involved with the recipient in solv an evaluation, is strictly forbidden. The data is of estimate quality only. Specific, reliable data is available only when provided by GE as part of a formal proposal.

Emission information based on GE recommended measurement methods. NOx emissions are corrected to 15% O2 without heat rate correction and are not corrected to ISO reference condition per 40CFR 60.335(a)(1)(i). NOx levels shown will be controlled by algorithms within the SPEEDTRONIC control system.

Sulfur emissions based on noted "WT%" or "ppmw" noted after Sulfur Content values in the fuel. Particulates Note: US-Total PM Emissions (filterable + condensable) utilize compliance measurements per US-EPA Test Method 5B dated 1990 (filterable) and US-EPA Test Method 202 dated 1991 (condensable) measured at GT exhaust flange.

Note: Modified Wobbe Index (MWI) is calculated as LHV/(Spec Gravity\*Temp)^0.5, in BTU/scf/\*R^0.5 Note: SCF is defined at 14.7 psi and 59°F

User: 204002079 Deck Access Level: 0 Job ID: Customer: Customer. Simulation Frame: 7F.05-0922T-L3 Date/Time: 4/7/23 11:43 PM GTP Web v5.70.1, 2023

ESTIMATED PERFORMANCE				r	r				1							r						1		
	Units	Case 1	Case 6	Case 11	Case 2	Case 7	Case 12	Case 16	Case 20	Case 3	Case 8	Case 13	Case 17	Case 21	Case 4	Case 9	Case 14	Case 18	Case 22	Case 5	Case 10	Case 15	Case 19	Case 23
Case Comments																								
Load Condition	%	BASE	BASE	BASE	BASE	BASE	BASE	BASE	BASE	80.0%	80.0%	80.0%	80.0%	80.0%	70.0%	70.0%	70.0%	70.0%	70.0%	MECL	MECL	MECL	MECL	MECL
Inlet Loss	in H2O	4.1	4.16	4.45	3.84	3.96	4.5	4.28	4.19	2.51	2.6	2.9	2.92	3.09	2.06	2.11	2.38	2.39	2.79	1.93	1.84	1.65	1.75	1.99
Exhaust Pressure Loss	in H2O	10.63	10.85	12.23	9.56	10.01	12.19	12.3	12.39	6.49	6.79	8	8.41	8.75	5.44	5.65	6.65	7	7.47	4.69	4.71	4.69	4.95	5.28
Ambient Temperature	deg F	107	98	59	107	98	59	29	-10	107	98	59	29	-10	107	98	59	29	-10	107	98	59	29	-10
Ambient Relative Humidity	%	35	43	60	35	43	60	57	57	35	43	60	57	57	35	43	60	57	57	35	43	60	57	57
Evap. Cooler Status		On	On	On	Off	Off	Off	Off	Note	Off	Off	Off	Off	Note	Off	Off	Off	Off	Note	Off	Off	Off	Off	Note
Evap. Cooler Effectiveness	%	90	90	90																				
Evaporation Rate	pps	5.354	4.179	1.749																				
Filter anti-icing		off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off	off
Fuel HHV	BTU/lb	20572	20572	20572	20572	20572	20572	20572	20572	20572	20572	20572	20572	20572	20572	20572	20572	20572	20572	20572	20572	20572	20572	20572
Fuel Temperature	deg F	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
Liquid Fuel H/C Ratio		1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92
Output	kW	204,902	207,863	225,603	185,693	193,389	222,839	232,191	234,377	148,554	154,711	178,271	185,753	187,502	129,985	135,372	155,987	162,533	164,064	103,000	107,000	112,000	117,000	118,000
Heat Rate (HHV)	BTU/kWh	10642	10614	10527	10836	10737	10552	10421	10461	11512	11347	10846	10691	10839	12197	11982	11313	11147	11390	13716	13419	13157	13030	13242
Heat Cons. (HHV)	MMBTU/hr	2180.6	2206.4	2375.0	2012.1	2076.5	2351.5	2419.7	2451.7	1710.3	1755.5	1933.3	1985.8	2032.2	1585.4	1622.1	1764.7	1811.8	1868.6	1412.8	1435.8	1473.6	1524.5	1562.6
Auxiliary Losses	kW	7161	7161	7161	7136	7136	7136	7136	8636	7136	7136	7136	7136	8636	7136	7136	7136	7136	8636	7136	7136	7136	7136	8636
Output - Net	kW	197,741	200,702	218,442	178,557	186,253	215,703	225,055	225,741	141,418	147,575	171,135	178,617	178,866	122,849	128,236	148,851	155,397	155,428	95,864	99,864	104,864	109,864	109,364
Heat Rate (HHV) - Net	BTU/kWh	11028	10994	10873	11269	11149	10901	10752	10861	12094	11896	11298	11118	11362	12905	12649	11855	11660	12022	14737	14378	14053	13876	14288
Exhaust Flow	x10^3 lb/hr	4102	4147	4414	3880	3977	4407	4430	4470	3153	3233	3536	3650	3743	2862	2924	3206	3311	3437	2656	2660	2655	2736	2845
Exhaust Temperature	deg F	1091	1088	1077	1104	1097	1077	1072	1050	1168	1158	1122	1090	1066	1210	1199	1147	1115	1094	1215	1215	1215	1199	1166
Exhaust MolWt	Ib/Ibmol	28.1	28.13	28.31	28.2	28.21	28.33	28.4	28.43	28.14	28.17	28.35	28.43	28.45	28.1	28.13	28.32	28.41	28.44	28.08	28.1	28.25	28.33	28.37
Exhaust Energy	MMBTU/hr	1096.8	1113.1	1204.1	1045.4	1072.4	1200.1	1230.9	1255.5	911.9	931.6	1008.4	1031.2	1067.2	865.7	880.4	938.6	960.1	1007.2	806.7	814	833.1	862.8	896.1
Water Flow	lb/hr	121,030	123,290	136,370	109,070	114,150	135,440	137,490	138,550	99,760	100,360	105,830	107,130	110,440	97,730	98,210	100,570	101,530	103,570	94,100	94,520	95,340	96,530	97,170
													0.17		<u> </u>			0 10					0 10	
EXHAUST ANALYSIS % VOL.		Case 1	Case 6	Case 11	Case 2	Case 7	Case 12	Case 16	Case 20	Case 3	Case 8	Case 13	Case 17	Case 21	Case 4	Case 9	Case 14	Case 18	Case 22	Case 5	Case 10	Case 15	Case 19	Case 23
Argon		0.84	0.84	0.84	0.85	0.84	0.84	0.86	0.87	0.83	0.84	0.85	0.86	0.87	0.83	0.84	0.86	0.87	0.86	0.84	0.83	0.84	0.85	0.85
Nitrogen		69.96	70.18	71.4	70.71	70.75	71.61	72.02	72.2	70.22	70.4	71.65	72.23	72.4	69.89	70.07	71.47	72.06	72.32	69.82	69.9	70.92	71.48	71.82
Oxygen		11.06	11.1	11.3	11.42	11.38	11.41	11.32	11.32	10.96	10.99	11.23	11.4	11.45	10.72	10.75	11.13	11.31	11.42	11.02	10.93	10.94	11.03	11.23
Carbon Dioxide		5.23	5.24	5.34	5.12	5.16	5.3	5.43	5.46	5.35	5.36	5.43	5.42	5.41	5.45	5.46	5.46	5.44	5.42	5.23	5.31	5.49	5.53	5.46
Water		12.91	12.64	11.12	11.9	11.87	10.84	10.37	10.15	12.64	12.41	10.84	10.09	9.87	13.11	12.89	11.09	10.32	9.98	13.09	13.03	11.81	11.11	10.64
GT EMISSIONS (per unit)	Units	Case 1	Case 6	Case 11	Case 2	Case 7	Case 12	Case 16	Case 20	Case 3	Case 8	Case 13	Case 17	Case 21	Case 4	Case 9	Case 14	Case 18	Case 22	Case 5	Case 10	Case 15	Case 19	Case 23
NOx	ppmvd @ 15% O2	42	42	42	42	42	42	42	42	42	42	42	42	42	42 42	42	42	42	42	42	42	42	42	42
NUX		42				4Z					288.7	317.6	326.3	334.2	260.6	266.5	290.1	298	307.3			242.1	250.7	256.8
NOV AS NO2	lb/br	2595	262.0			241.2																	230.7	
NOX AS NO2	lb/hr	358.5	362.9	390.1	330.9	341.3	386.4	397.6	403.3	281.2				0.1645	0.1644	0.1642	0.1644			232.4	235.9	0.1642	0.1644	
NOx AS NO2	lb/MMBtu	0.1644	0.1645	0.1643	0.1645	0.1644	0.1643	0.1643	0.1645	0.1644	0.1645	0.1643	0.1643	0.1645	0.1644	0.1643	0.1644	0.1645	0.1645	0.1645	0.1643	0.1643	0.1644	0.1643
	lb/MMBtu ppmvd	0.1644 20	0.1645 20	0.1643 20	0.1645 20	0.1644 20	0.1643 20	0.1643 20	0.1645 20	0.1644 20	0.1645 20	0.1643 20	0.1643 20	20	20	20	20	0.1645 20	0.1645 20	0.1645 20	0.1643 20	20	20	0.1643 20
NOx AS NO2 CO CO	lb/MMBtu ppmvd lb/hr	0.1644 20 74.8	0.1645 20 75.8	0.1643 20 81.5	0.1645 20 71.3	0.1644 20 73.1	0.1643 20 81.6	0.1643 20 82.2	0.1645 20 83.1	0.1644 20 57.6	0.1645 20 59.1	0.1643 20 65.4	0.1643 20 67.9	20 69.7	20 52.1	20 53.3	20 59.2	0.1645 20 61.5	0.1645 20 64	0.1645 20 48.4	0.1643 20 48.4	20 48.8	20 50.5	0.1643 20 52.7
NOx AS NO2 CO CO VOC	lb/MMBtu ppmvd lb/hr ppmvw	0.1644 20 74.8 3.5	0.1645 20 75.8 3.5	0.1643 20 81.5 3.5	0.1645 20 71.3 3.5	0.1644 20 73.1 3.5	0.1643 20 81.6 3.5	0.1643 20 82.2 3.5	0.1645 20 83.1 3.5	0.1644 20 57.6 3.5	0.1645 20 59.1 3.5	0.1643 20 65.4 3.5	0.1643 20 67.9 3.5	20 69.7 3.5	20 52.1 3.5	20 53.3 3.5	20 59.2 3.5	0.1645 20 61.5 3.5	0.1645 20 64 3.5	0.1645 20 48.4 3.5	0.1643 20 48.4 3.5	20 48.8 3.5	20 50.5 3.5	0.1643 20 52.7 3.5
NOx AS NO2 CO CO VOC VOC	lb/MMBtu ppmvd lb/hr ppmvw lb/hr	0.1644 20 74.8 3.5 8.61	0.1645 20 75.8 3.5 8.69	0.1643 20 81.5 3.5 9.19	0.1645 20 71.3 3.5 8.11	0.1644 20 73.1 3.5 8.31	0.1643 20 81.6 3.5 9.17	0.1643 20 82.2 3.5 9.2	0.1645 20 83.1 3.5 9.27	0.1644 20 57.6 3.5 6.61	0.1645 20 59.1 3.5 6.77	0.1643 20 65.4 3.5 7.35	0.1643 20 67.9 3.5 7.57	20 69.7 3.5 7.76	20 52.1 3.5 6	20 53.3 3.5 6.13	20 59.2 3.5 6.67	0.1645 20 61.5 3.5 6.87	0.1645 20 64 3.5 7.12	0.1645 20 48.4 3.5 5.58	0.1643 20 48.4 3.5 5.58	20 48.8 3.5 5.54	20 50.5 3.5 5.69	0.1643 20 52.7 3.5 5.91
NOX AS NO2 CO CO VOC VOC SO2	lb/MMBtu ppmvd lb/hr ppmvw lb/hr lb/hr	0.1644 20 74.8 3.5 8.61 4	0.1645 20 75.8 3.5 8.69 4.05	0.1643 20 81.5 3.5 9.19 4.36	0.1645 20 71.3 3.5 8.11 3.69	0.1644 20 73.1 3.5 8.31 3.81	0.1643 20 81.6 3.5 9.17 4.32	0.1643 20 82.2 3.5 9.2 4.44	0.1645 20 83.1 3.5 9.27 4.5	0.1644 20 57.6 3.5 6.61 3.14	0.1645 20 59.1 3.5 6.77 3.22	0.1643 20 65.4 3.5 7.35 3.55	0.1643 20 67.9 3.5 7.57 3.65	20 69.7 3.5 7.76 3.73	20 52.1 3.5 6 2.91	20 53.3 3.5 6.13 2.98	20 59.2 3.5 6.67 3.24	0.1645 20 61.5 3.5 6.87 3.33	0.1645 20 64 3.5 7.12 3.43	0.1645 20 48.4 3.5 5.58 2.59	0.1643 20 48.4 3.5 5.58 2.64	20 48.8 3.5 5.54 2.7	20 50.5 3.5 5.69 2.8	0.1643 20 52.7 3.5 5.91 2.87
NOX AS NO2 CO CO VOC VOC SO2 SO2 SO2 Sulfur Mist	lb/MMBtu ppmvd lb/hr ppmvw lb/hr lb/hr lb/hr	0.1644 20 74.8 3.5 8.61 4 0.306	0.1645 20 75.8 3.5 8.69 4.05 0.31	0.1643 20 81.5 3.5 9.19 4.36 0.334	0.1645 20 71.3 3.5 8.11	0.1644 20 73.1 3.5 8.31 3.81 0.292	0.1643 20 81.6 3.5 9.17 4.32 0.33	0.1643 20 82.2 3.5 9.2 4.44 0.34	0.1645 20 83.1 3.5 9.27 4.5 0.345	0.1644 20 57.6 3.5 6.61	0.1645 20 59.1 3.5 6.77 3.22 0.247	0.1643 20 65.4 3.5 7.35	0.1643 20 67.9 3.5 7.57 3.65 0.279	20 69.7 3.5 7.76 3.73 0.286	20 52.1 3.5 6	20 53.3 3.5 6.13 2.98 0.228	20 59.2 3.5 6.67	0.1645 20 61.5 3.5 6.87 3.33 0.255	0.1645 20 64 3.5 7.12	0.1645 20 48.4 3.5 5.58 2.59 0.199	0.1643 20 48.4 3.5 5.58 2.64 0.202	20 48.8 3.5 5.54 2.7 0.207	20 50.5 3.5 5.69 2.8 0.214	0.1643 20 52.7 3.5 5.91 2.87 0.22
NOX AS NO2 CO CO VOC VOC SO2 Sulfur Mist Filterable Particulates	Ib/MMBtu ppmvd Ib/hr ppmvw Ib/hr Ib/hr Ib/hr Ib/hr	0.1644 20 74.8 3.5 8.61 4 0.306 20	0.1645 20 75.8 3.5 8.69 4.05 0.31 20	0.1643 20 81.5 3.5 9.19 4.36 0.334 20	0.1645 20 71.3 3.5 8.11 3.69 0.283 20	0.1644 20 73.1 3.5 8.31 3.81 0.292 20	0.1643 20 81.6 3.5 9.17 4.32 0.33 20	0.1643 20 82.2 3.5 9.2 4.44 0.34 20	0.1645 20 83.1 3.5 9.27 4.5 0.345 20	0.1644 20 57.6 3.5 6.61 3.14 0.24 20	0.1645 20 59.1 3.5 6.77 3.22 0.247 20	0.1643 20 65.4 3.5 7.35 3.55 0.272 20	0.1643 20 67.9 3.5 7.57 3.65 0.279 20	20 69.7 3.5 7.76 3.73 0.286 20	20 52.1 3.5 6 2.91 0.223 20	20 53.3 3.5 6.13 2.98 0.228 20	20 59.2 3.5 6.67 3.24 0.248 20	0.1645 20 61.5 3.5 6.87 3.33 0.255 20	0.1645 20 64 3.5 7.12 3.43 0.263 20	0.1645 20 48.4 3.5 5.58 2.59 0.199 20	0.1643 20 48.4 3.5 5.58 2.64 0.202 20	20 48.8 3.5 5.54 2.7 0.207 20	20 50.5 3.5 5.69 2.8 0.214 20	0.1643 20 52.7 3.5 5.91 2.87 0.22 20
NOx AS NO2 CO CO VOC SO2 Suffur Mist Filterable Particulates Total Particulates	lb/MMBtu ppmvd lb/hr ppmvw lb/hr lb/hr lb/hr lb/hr lb/h lb/hr	0.1644 20 74.8 3.5 8.61 4 0.306 20 41	0.1645 20 75.8 3.5 8.69 4.05 0.31 20 41	0.1643 20 81.5 3.5 9.19 4.36 0.334 20 41	0.1645 20 71.3 3.5 8.11 3.69 0.283 20 41	0.1644 20 73.1 3.5 8.31 3.81 0.292 20 41	0.1643 20 81.6 3.5 9.17 4.32 0.33 20 41	0.1643 20 82.2 3.5 9.2 4.44 0.34 20 41	0.1645 20 83.1 3.5 9.27 4.5 0.345 20 41	0.1644 20 57.6 3.5 6.61 3.14 0.24 20 41	0.1645 20 59.1 3.5 6.77 3.22 0.247 20 41	0.1643 20 65.4 3.5 7.35 3.55 0.272 20 41	0.1643 20 67.9 3.5 7.57 3.65 0.279 20 41	20 69.7 3.5 7.76 3.73 0.286 20 41	20 52.1 3.5 6 2.91 0.223 20 40	20 53.3 3.5 6.13 2.98 0.228 20 40	20 59.2 3.5 6.67 3.24 0.248 20 41	0.1645 20 61.5 3.5 6.87 3.33 0.255 20 41	0.1645 20 64 3.5 7.12 3.43 0.263 20 41	0.1645 20 48.4 3.5 5.58 2.59 0.199 20 40	0.1643 20 48.4 3.5 5.58 2.64 0.202 20 40	20 48.8 3.5 5.54 2.7 0.207 20 40	20 50.5 3.5 5.69 2.8 0.214 20 40	0.1643 20 52.7 3.5 5.91 2.87 0.22 20 40
NOX AS NO2 CO CO VOC VOC SO2 SUfur Mist Filterable Particulates Total Particulates Total Particulates PM10/2.5	Ib/MMBtu           ppmvd           lb/hr           ppmvw           lb/hr	0.1644 20 74.8 3.5 8.61 4 0.306 20 41 41	0.1645 20 75.8 3.5 8.69 4.05 0.31 20 41 41	0.1643 20 81.5 3.5 9.19 4.36 0.334 20 41 41	0.1645 20 71.3 3.5 8.11 3.69 0.283 20 41 41	0.1644 20 73.1 3.5 8.31 3.81 0.292 20 41 41	0.1643 20 81.6 3.5 9.17 4.32 0.33 20 41 41	0.1643 20 82.2 3.5 9.2 4.44 0.34 20 41 41	0.1645 20 83.1 3.5 9.27 4.5 0.345 20 41 41	0.1644 20 57.6 3.5 6.61 3.14 0.24 20 41 41	0.1645 20 59.1 3.5 6.77 3.22 0.247 20 41 41	0.1643 20 65.4 3.5 7.35 3.55 0.272 20 41 41	0.1643 20 67.9 3.5 7.57 3.65 0.279 20 41 41	20 69.7 3.5 7.76 3.73 0.286 20 41 41	20 52.1 3.5 6 2.91 0.223 20 40 40	20 53.3 3.5 6.13 2.98 0.228 20 40 40	20 59.2 3.5 6.67 3.24 0.248 20 41 41	0.1645 20 61.5 3.5 6.87 3.33 0.255 20 41 41	0.1645 20 64 3.5 7.12 3.43 0.263 20 41 41	0.1645 20 48.4 3.5 5.58 2.59 0.199 20 40 40	0.1643 20 48.4 3.5 5.58 2.64 0.202 20 40 40	20 48.8 3.5 5.54 2.7 0.207 20 40 40	20 50.5 3.5 5.69 2.8 0.214 20 40 40	0.1643 20 52.7 3.5 5.91 2.87 0.22 20 40 40
NOX AS NO2 CO CO VOC SO2 Suffur Mist Filterable Particulates Total Particulates PM10/2.5 Eormaldehyde	Ib/MMBtu           ppmvd           lb/hr           ppmvw           lb/hr	0.1644 20 74.8 3.5 8.61 4 0.306 20 41 41 182	0.1645 20 75.8 3.5 8.69 4.05 0.31 20 41 41 91	0.1643 20 81.5 3.5 9.19 4.36 0.334 20 41 41 91	0.1645 20 71.3 3.5 8.11 3.69 0.283 20 41 41 91	0.1644 20 73.1 3.5 8.31 0.292 20 41 41 91	0.1643 20 81.6 3.5 9.17 4.32 0.33 20 41 41 91	0.1643 20 82.2 3.5 9.2 4.44 0.34 20 41 41 91	0.1645 20 83.1 3.5 9.27 4.5 0.345 20 41 41 91	0.1644 20 57.6 3.5 6.61 3.14 0.24 20 41 41 91	0.1645 20 59.1 3.5 6.77 3.22 0.247 20 41 41 91	0.1643 20 65.4 3.5 7.35 3.55 0.272 20 41 41 91	0.1643 20 67.9 3.5 7.57 3.65 0.279 20 41 41 91	20 69.7 3.5 7.76 3.73 0.286 20 41 41 91	20 52.1 3.5 6 2.91 0.223 20 40 40 91	20 53.3 3.5 6.13 2.98 0.228 20 40 40 91	20 59.2 3.5 6.67 3.24 0.248 20 41 41 91	0.1645 20 61.5 3.5 6.87 3.33 0.255 20 41 41 91	0.1645 20 64 3.5 7.12 3.43 0.263 20 41 41 91	0.1645 20 48.4 3.5 5.58 2.59 0.199 20 40 40 91	0.1643 20 48.4 3.5 5.58 2.64 0.202 20 40 40 91	20 48.8 3.5 5.54 2.7 0.207 20 40 40 91	20 50.5 3.5 5.69 2.8 0.214 20 40 40 91	0.1643 20 52.7 3.5 5.91 2.87 0.22 20 40 40 91
NOX AS NO2 CO CO VOC VOC SO2 SUfur Mist Filterable Particulates Total Particulates Total Particulates PM10/2.5	Ib/MMBtu           ppmvd           lb/hr           ppmvw           lb/hr	0.1644 20 74.8 3.5 8.61 4 0.306 20 41 41	0.1645 20 75.8 3.5 8.69 4.05 0.31 20 41 41	0.1643 20 81.5 3.5 9.19 4.36 0.334 20 41 41	0.1645 20 71.3 3.5 8.11 3.69 0.283 20 41 41	0.1644 20 73.1 3.5 8.31 3.81 0.292 20 41 41	0.1643 20 81.6 3.5 9.17 4.32 0.33 20 41 41	0.1643 20 82.2 3.5 9.2 4.44 0.34 20 41 41	0.1645 20 83.1 3.5 9.27 4.5 0.345 20 41 41	0.1644 20 57.6 3.5 6.61 3.14 0.24 20 41 41	0.1645 20 59.1 3.5 6.77 3.22 0.247 20 41 41	0.1643 20 65.4 3.5 7.35 3.55 0.272 20 41 41	0.1643 20 67.9 3.5 7.57 3.65 0.279 20 41 41	20 69.7 3.5 7.76 3.73 0.286 20 41 41	20 52.1 3.5 6 2.91 0.223 20 40 40	20 53.3 3.5 6.13 2.98 0.228 20 40 40	20 59.2 3.5 6.67 3.24 0.248 20 41 41	0.1645 20 61.5 3.5 6.87 3.33 0.255 20 41 41	0.1645 20 64 3.5 7.12 3.43 0.263 20 41 41	0.1645 20 48.4 3.5 5.58 2.59 0.199 20 40 40	0.1643 20 48.4 3.5 5.58 2.64 0.202 20 40 40	20 48.8 3.5 5.54 2.7 0.207 20 40 40	20 50.5 3.5 5.69 2.8 0.214 20 40 40	0.1643 20 52.7 3.5 5.91 2.87 0.22 20 40 40
NOX AS NO2 CO CO VOC VOC SO2 Sulfur Mist Filterable Particulates Total Particulates Particulates PM10/2.5 Formaldehyde Formaldehyde	Ib/MMBtu           ppmvd           lb/hr           b/hr	0.1644 20 74.8 3.5 8.61 4 0.306 20 41 41 182	0.1645 20 75.8 3.5 8.69 4.05 0.31 20 41 41 91	0.1643 20 81.5 3.5 9.19 4.36 0.334 20 41 41 91	0.1645 20 71.3 3.5 8.11 3.69 0.283 20 41 41 91	0.1644 20 73.1 3.5 8.31 0.292 20 41 41 91	0.1643 20 81.6 3.5 9.17 4.32 0.33 20 41 41 91	0.1643 20 82.2 3.5 9.2 4.44 0.34 20 41 41 91	0.1645 20 83.1 3.5 9.27 4.5 0.345 20 41 41 91	0.1644 20 57.6 3.5 6.61 3.14 0.24 20 41 41 91	0.1645 20 59.1 3.5 6.77 3.22 0.247 20 41 41 91	0.1643 20 65.4 3.5 7.35 3.55 0.272 20 41 41 91	0.1643 20 67.9 3.5 7.57 3.65 0.279 20 41 41 91	20 69.7 3.5 7.76 3.73 0.286 20 41 41 91	20 52.1 3.5 6 2.91 0.223 20 40 40 91	20 53.3 3.5 6.13 2.98 0.228 20 40 40 91	20 59.2 3.5 6.67 3.24 0.248 20 41 41 91	0.1645 20 61.5 3.5 6.87 3.33 0.255 20 41 41 91	0.1645 20 64 3.5 7.12 3.43 0.263 20 41 41 91	0.1645 20 48.4 3.5 5.58 2.59 0.199 20 40 40 91	0.1643 20 48.4 3.5 5.58 2.64 0.202 20 40 40 91	20 48.8 3.5 5.54 2.7 0.207 20 40 40 91	20 50.5 3.5 5.69 2.8 0.214 20 40 40 91	0.1643 20 52.7 3.5 5.91 2.87 0.22 20 40 40 91
NOX AS NO2 CO CO VOC VOC SO2 SUfur Mist Filterable Partculates Filterable Partculates PM10/2.5 Formaldehyde Formaldehyde Stack Exit Conditions (Includes Temperiri	B/MMBtu           ppmvd           lb/hr           ppmvve           lb/hr	0.1644 20 74.8 3.5 8.61 4 0.306 20 41 41 1.012	0.1645 20 75.8 3.5 8.69 4.05 0.31 20 41 41 91 0.512	0.1643 20 81.5 3.5 9.19 4.36 0.334 20 41 41 91 0.551	0.1645 20 71.3 3.5 8.11 3.69 0.283 20 41 41 91 0.467	0.1644 20 73.1 3.5 8.31 3.81 0.292 20 41 41 91 0.482	0.1643 20 81.6 3.5 9.17 4.32 0.33 20 41 41 91 0.546	0.1643 20 82.2 3.5 9.2 4.44 0.34 20 41 41 91 0.561	0.1645 20 83.1 3.5 9.27 4.5 0.345 20 41 41 91 0.570	0.1644 20 57.6 3.5 6.61 3.14 0.24 20 41 41 91 0.397	0.1645 20 59.1 3.5 6.77 3.22 0.247 20 41 41 91 0.407	0.1643 20 65.4 3.5 7.35 3.55 0.272 20 41 41 91 0.448	0.1643 20 67.9 3.5 7.57 3.65 0.279 20 41 41 91 0.461	20 69.7 3.5 7.76 3.73 0.286 20 41 41 91 0.472	20 52.1 3.5 6 2.91 0.223 20 40 40 91 0.367	20 53.3 3.5 6.13 2.98 0.228 20 40 40 91 0.376	20 59.2 3.5 6.67 3.24 0.248 20 41 41 91 0.409	0.1645 20 61.5 3.5 6.87 3.33 0.255 20 41 41 91 0.421	0.1645 20 64 3.5 7.12 3.43 0.263 20 41 41 91 0.434	0.1645 20 48.4 3.5 5.58 2.59 0.199 20 40 40 91 0.328	0.1643 20 48.4 3.5 5.58 2.64 0.202 20 40 40 91 0.333	20 48.8 3.5 5.54 2.7 0.207 20 40 40 91 0.341	20 50.5 3.5 5.69 2.8 0.214 20 40 40 91 0.354	0.1643 20 52.7 3.5 5.91 2.87 0.22 20 40 40 91 0.362
NOX AS NO2 CO CO VOC VOC SO2 Sulfur Mist Filterable Particulates Total Particulates Particulates PM10/2.5 Formaldehyde Formaldehyde	Ib/MMBtu           ppmvd           lb/hr           b/hr	0.1644 20 74.8 3.5 8.61 4 0.306 20 41 41 182	0.1645 20 75.8 3.5 8.69 4.05 0.31 20 41 41 91	0.1643 20 81.5 3.5 9.19 4.36 0.334 20 41 41 91	0.1645 20 71.3 3.5 8.11 3.69 0.283 20 41 41 91	0.1644 20 73.1 3.5 8.31 0.292 20 41 41 91	0.1643 20 81.6 3.5 9.17 4.32 0.33 20 41 41 91	0.1643 20 82.2 3.5 9.2 4.44 0.34 20 41 41 91	0.1645 20 83.1 3.5 9.27 4.5 0.345 20 41 41 91	0.1644 20 57.6 3.5 6.61 3.14 0.24 20 41 41 91	0.1645 20 59.1 3.5 6.77 3.22 0.247 20 41 41 91	0.1643 20 65.4 3.5 7.35 3.55 0.272 20 41 41 91	0.1643 20 67.9 3.5 7.57 3.65 0.279 20 41 41 91	20 69.7 3.5 7.76 3.73 0.286 20 41 41 91	20 52.1 3.5 6 2.91 0.223 20 40 40 91	20 53.3 3.5 6.13 2.98 0.228 20 40 40 91	20 59.2 3.5 6.67 3.24 0.248 20 41 41 91	0.1645 20 61.5 3.5 6.87 3.33 0.255 20 41 41 91	0.1645 20 64 3.5 7.12 3.43 0.263 20 41 41 91	0.1645 20 48.4 3.5 5.58 2.59 0.199 20 40 40 91	0.1643 20 48.4 3.5 5.58 2.64 0.202 20 40 40 91	20 48.8 3.5 5.54 2.7 0.207 20 40 40 91	20 50.5 3.5 5.69 2.8 0.214 20 40 40 91	0.1643 20 52.7 3.5 5.91 2.87 0.22 20 40 40 91
NOX KS NO2 CO CO VOC VOC SO2 SO2 SUFUR MIST Filterable Particulates Filterable Particulates PM10/2.5 Formaldehyde Formaldehyde Stack Exit Conditions (Includes Temperin Exhaust Vol Tow Exhaust Vol Tow	B/MMBtu           ppmvd           lb/hr           ppmvve           lb/hr	0.1644 20 74.8 3.5 8.61 4 0.306 20 41 41 182 1.012 3757960 132.92	0.1645 20 75.8 8.69 4.05 0.31 20 41 41 41 91 0.512 3770710 133.37	0.1643 20 81.5 3.5 9.19 4.36 0.334 20 41 41 91 0.551 3892970 137.70	0.1645 20 71.3 3.5 8.11 3.69 0.283 20 41 41 91 0.467 3590930 127.01	0.1644 20 73.1 3.5 8.31 3.81 0.292 20 41 41 41 91 0.482 3640610 128.77	0.1643 20 81.6 3.5 9.17 4.32 0.33 20 41 41 91 0.546 3882510 137.33	0.1643 20 82.2 3.5 9.2 4.44 0.34 20 41 41 91 0.561 3840780 135.85	0.1645 20 83.1 3.5 9.27 4.5 0.345 20 41 91 0.570 3746470 132.52	0.1644 20 57.6 3.5 6.61 3.14 0.24 20 41 41 91 0.397 3133390 110.83	0.1645 20 59.1 3.5 6.77 3.22 0.247 20 41 41 41 91 0.407 3164760 111.94	0.1643 20 65.4 3.5 7.35 3.55 0.272 20 41 41 91 0.448 3265880 115.52	0.1643 20 67.9 3.5 7.57 3.65 0.279 20 41 41 41 91 0.461 3220930 113.93	20 69.7 3.5 7.76 3.73 0.286 20 41 41 91 0.472 3186070 112.69	20 52.1 3.5 6 2.91 0.223 20 40 40 91 0.367 2974170 105.20	20 53.3 3.5 6.13 2.98 0.228 20 40 40 91 0.376 2990470 105.78	20 59.2 3.5 6.67 3.24 0.248 20 41 41 91 0.409 3041090 107.57	0.1645 20 61.5 3.5 6.87 3.33 0.255 20 41 41 41 91 0.421 3001580 106.17	0.1645 20 64 3.5 7.12 3.43 0.263 20 41 41 91 0.434 3011220 106.51	0.1645 20 48.4 3.5 5.58 2.59 0.199 20 40 40 91 0.328 2774700 98.14	0.1643 20 48.4 3.5 5.58 2.64 0.202 20 40 40 91 0.333 2766670 97.86	20 48.8 3.5 5.54 2.7 0.207 20 40 40 91 0.341 2701470 95.55	20 50.5 3.5 5.69 2.8 0.214 20 40 40 91 0.354 2701350 95.55	0.1643 20 52.7 3.5 5.91 2.87 0.22 20 40 40 91 0.362 2680550 94.81
NOX AS NO2 CO CO VOC VOC SO2 SUTUR MISS Suffur MISS Suffur MISS Filterable Particulates Filterable Particulates Formaldehyde Formaldehyde Stack Kalk Conditions (Includes Temperint Exhaust vol flow Exhaust Gae Stack Velochy, filsee Stack Mass flow, per stack	B/MMBtu           ppmvd           lb/hr           ppmvve           lb/hr	0.1644 20 74.8 3.5 8.61 4 0.306 20 41 41 1.012	0.1645 20 75.8 3.5 8.69 4.05 0.31 20 41 41 91 0.512	0.1643 20 81.5 3.5 9.19 4.36 0.334 20 41 41 91 0.551	0.1645 20 71.3 3.5 8.11 3.69 0.283 20 41 41 91 0.467	0.1644 20 73.1 3.5 8.31 3.81 0.292 20 41 41 91 0.482	0.1643 20 81.6 3.5 9.17 4.32 0.33 20 41 41 91 0.546	0.1643 20 82.2 3.5 9.2 4.44 0.34 20 41 41 91 0.561	0.1645 20 83.1 3.5 9.27 4.5 0.345 20 41 41 91 0.570	0.1644 20 57.6 3.5 6.61 3.14 0.24 20 41 41 91 0.397	0.1645 20 59.1 3.5 6.77 3.22 0.247 20 41 41 91 0.407	0.1643 20 65.4 3.5 7.35 3.55 0.272 20 41 41 91 0.448	0.1643 20 67.9 3.5 7.57 3.65 0.279 20 41 41 91 0.461	20 69.7 3.5 7.76 3.73 0.286 20 41 41 91 0.472	20 52.1 3.5 6 2.91 0.223 20 40 40 91 0.367	20 53.3 3.5 6.13 2.98 0.228 20 40 40 91 0.376	20 59.2 3.5 6.67 3.24 0.248 20 41 41 91 0.409	0.1645 20 61.5 3.5 6.87 3.33 0.255 20 41 41 91 0.421	0.1645 20 64 3.5 7.12 3.43 0.263 20 41 41 91 0.434	0.1645 20 48.4 3.5 5.58 2.59 0.199 20 40 40 91 0.328	0.1643 20 48.4 3.5 5.58 2.64 0.202 20 40 40 91 0.333	20 48.8 3.5 5.54 2.7 0.207 20 40 40 91 0.341	20 50.5 3.5 5.69 2.8 0.214 20 40 40 91 0.354	0.1643 20 52.7 3.5 5.91 2.87 0.22 20 40 40 91 0.362
NOx AS NO2 CO CO VOC VOC SO2 Suffur Mist Filterable Particulates Total Particulates PM10/2.5 Formaldehyde Formaldehyde Stack Exit Conditions (Includes Temperin Exhaust vol flow Exhaust Volkocity, If/sec Stack Mass flow, per stack Stack Temperature	b/MMBtu ppmvd lb/hr l	0.1644 20 74.8 3.5 8.61 4 0.306 20 41 182 1.012 3757960 132.92 5608670 850	0.1645 20 75.8 3.5 8.69 4.05 0.31 20 41 41 91 0.512 3770710 133.37 5632580 850	0.1643 20 81.5 3.5 9.19 4.36 0.334 20 41 41 91 9.551 	0.1645 20 71.3 3.5 8.11 3.69 0.283 20 41 41 41 91 0.467 3590930 127.01 5374070	0.1644 20 73.1 3.5 8.31 3.81 0.292 20 41 41 91 0.482 91 0.482 91 3640610 128.77 5449600 850	0.1643 20 81.6 3.5 9.17 4.32 0.33 20 41 41 41 91 0.546 	0.1643 20 82.2 3.5 9.2 4.44 20 41 41 91 0.561 3840780 135.85 5787840	0.1645 20 83.1 3.5 9.27 4.5 20 41 41 91 0.570 3746470 132.52 5648540 850	0.1644 20 57.6 3.5 6.61 3.14 0.24 41 91 9.397 3133390 110.83 4686560	0.1645 20 59.1 3.5 6.77 3.22 0.247 20 41 41 91 0.407 3164760 111.94 4736710	0.1643 20 65.4 3.5 7.35 3.55 0.272 20 41 41 91 0.448 3265880 115.52 4915560	0.1643 20 67.9 3.5 7.57 3.65 0.279 20 41 41 91 0.461 3220930 113.93 4858870 850	20 69.7 3.5 7.76 3.73 0.286 20 41 41 41 91 0.472 3186070 112.69 4808100	20 52.1 3.5 6 2.91 0.223 20 40 91 0.367 2974170 105.20 4446630 850	20 53.3 3.5 6.13 2.98 0.228 20 40 40 91 0.376 2990470 105.78 4473700	20 59.2 3.5 6.67 3.24 0.248 20 41 91 0.409 3041090 107.57 4576000	0.1645 20 61.5 3.5 6.87 3.3 0.255 20 41 41 91 0.421 3001580 106.17 4526780 850	0.1645 20 64 3.5 7.12 3.43 0.263 20 41 41 91 0.434 3011220 106.51 4544590	0.1645 20 48.4 3.5 5.58 2.59 20 40 91 0.328 2774700 98.14 4146760 850	0.1643 20 48.4 3.5 5.58 2.64 0.202 20 40 0.202 20 40 91 0.333 2766670 97.86 4136820 850	20 48.8 3.5 5.54 2.7 0.207 20 40 91 0.341 2701470 <b>95.55</b> 4061330	20 50.5 3.5 5.69 2.8 0.214 20 40 91 0.354 2701350 95.55 4071010 850	0.1643 20 52.7 3.5 5.91 2.87 0.22 20 40 40 91 0.362 2680550 94.81 4042520 850
NOX AS NO2 CO CO CO VOC VOC SO2 SURUr Mist Filterable Particulates Filterable Particulates PM10/2.5 Formaldehyde Formaldehyde Stack Exit Conditions (Includes Temperin Exhaust Vol flow Exhaust Vol Fastek Velocity, If/sec Stack Mass flow, per stack Stack Mass flow, per stack Stack Mass flow, per stack Stack Mass flow, per stack	Ib/MMBtu           ppmvd           lb/hr           jb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/h           lb/h           lb/h           lb/h           lb/h           lb/h           lb/h           jcfm           ft/sec           lb/h           'F	0.1644 20 74.8 3.5 8.61 4 0.306 20 41 1.82 1.012 3757960 132.92 5608670 850 28.25	0.1645 20 75.8 8.69 4.05 0.31 20 41 41 91 0.512 3770710 133.37 5632580 850 28.27	0.1643 20 81.5 3.5 9.19 4.36 0.334 20 41 41 91 0.551 3892970 137.70 5849350 5850 28.44	0.1645 20 71.3 3.5 8.11 3.69 0.283 20 41 41 91 0.467 3590930 127.01 5374070 8550 28.32	0.1644 20 73.1 3.5 8.31 0.292 20 41 41 91 0.482 	0.1643 20 81.6 3.5 9.17 4.32 0.33 20 41 41 91 0.546 3882510 137.33 5837670 850 28.46	0.1643 20 82.2 3.5 9.2 4.44 0.34 20 41 41 91 0.561 3840780 135.85 5787840 850 28.52	0.1645 20 83.1 3.5 9.27 4.5 0.345 20 41 41 0.570 91 0.570 3746470 132.52 5648540 850 28.53	0.1644 20 57.6 3.5 6.61 3.14 20 41 41 0.24 91 0.397 3133390 110.83 4686560 850 28.31	0.1645 20 59.1 3.5 6.77 3.22 0.247 20 41 91 0.407 3164760 111.94 4736710 850 28.33	0.1643 20 65.4 3.5 7.35 7.35 0.272 20 41 41 91 0.448 3265880 115.52 4915560 850	0.1643 20 67.9 3.5 7.57 3.65 0.279 20 41 41 91 0.461 3220930 113.93 4858870 850 28.55	20 69.7 3.5 7.76 3.73 0.286 20 41 41 41 0.472 3186070 112.69 4808100 8550 28.56	20 52.1 3.5 6 2.91 0.223 20 40 40 91 9.1 0.367 2974170 105.20 4446630 850 28.30	20 53.3 3.5 6.13 2.98 20 40 40 40 91 91 91 91 9290470 105.78 4473700 8550 28.31	20 59.2 3.5 6.67 3.24 20 41 41 41 91 0.409 0.409 3041090 107.57 4576000 850 28.48	0.1645 20 615 3.5 6.87 3.33 0.255 20 41 41 91 0.421 3001580 106.17 4526780 850 28.54	0.1645 20 64 3.5 7.12 3.43 0.263 20 41 41 91 0.434 3011220 106.51 4544590 850 28.56	0.1645 20 48.4 3.5 5.58 2.59 0.199 20 40 40 91 0.328 2774700 98.14 4146760 850 28.28	0.1643 20 48.4 3.5 5.58 2.64 0.202 20 40 91 0.333 2766670 97.86 4136820 850 28.30	20 48.8 3.5 5.54 2.7 0.207 20 40 40 40 0.341 0.341 2701470 <b>95.55</b> 4061330 850 28.45	20 50.5 5.69 2.8 0.214 20 40 40 91 9.3 54 2701350 <b>95.55</b> 4071010 850 28.52	0.1643 20 52.7 3.5 5.91 2.87 0.22 20 40 40 40 91 0.362 2680550 94.81 4042520 850
NOX AS NO2 CO CO CO VOC VOC SO2 Sulfur Mist Filterable Particulates Total Particulates Filterable Particulates PM10/2.5 Formaldehyde Formaldehyde Formaldehyde Stack Exit Conditions (Includes Temperir Exhaust vol flow Exhaust Ginow per stack Stack Molecular Weight Stack Molecular Weight Stack Molecular Weight	Ib/MMBtu           ppmvd           lb/hr           jb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/h           lb/h           lb/h           lb/h           lb/h           lb/h           lb/h           jcfm           ft/sec           lb/h           'F	0.1644 20 74.8 3.5 8.61 4 0.306 20 41 182 1.012 3757960 132.92 5608670 850 28.55 24.5	0.1645 20 75.8 8.69 4.05 0.31 20 41 91 0.512 3770710 133.37 5632580 850 28.27 24.5	0.1643 20 81.5 3.5 9.19 4.36 0.334 20 41 91 0.551 3892970 137.70 5849350 850 28.44 24.5	0.1645 20 71.3 3.5 8.11 3.69 0.283 20 41 91 0.467 3590930 127.01 5374070 8530 28.32 24.5	0.1644 20 73.1 3.5 8.31 0.292 20 41 91 0.482 3640610 128.77 5449600 850 28.33 24.5	0.1643 20 81.6 3.5 9.17 4.32 20 41 91 0.546 3882510 137.33 5837670 850 28.66 24.5	0.1643 20 82.2 3.5 9.2 4.44 0.34 20 41 91 0.561 3840780 135.85 5787840 850 28.52 24.5	0.1645 20 83.1 3.5 9.27 4.5 20 41 91 0.570 3746470 132.52 5648540 850 28.53 24.5	0.1644 20 57.6 3.5 6.61 3.14 0.24 20 41 91 0.397 3133390 110.83 4686560 850 28.31 24.5	0.1645 20 59.1 3.5 6.77 20 0.247 20 41 91 0.407 3164760 111.94 4736710 850 28.53 24.5	0.1643 20 65.4 3.5 7.35 3.55 0.272 20 41 91 0.448 3265880 115.52 4915560 850 28.49 24.5	0.1643 20 67.9 3.5 7.57 3.65 0.279 20 41 91 0.461 3220930 113.93 4858870 850 28.55 24.5	20 69.7 3.5 7.76 3.73 0.286 20 41 41 41 91 0.472 3186070 112.69 4808100 850 28.56 24.5	20 52.1 3.5 6 2.91 0.223 20 40 40 91 0.367 2974170 105.20 4446630 850 28.30 28.30 24.5	20 53.3 3.5 6.13 2.98 20 40 40 91 91 0.376 2990470 105.78 4473700 850 2850 2851 24.5	20 59.2 3.5 6.67 3.24 0.248 20 41 41 41 91 0.409 <b>107.57</b> 4576000 850 28.48 24.5	0.1645 20 61.5 3.5 6.87 3.33 0.255 20 41 91 0.421 3001580 106.17 4526780 850 28.54 24.5	0.1645 20 64 3.5 7.12 3.43 20 41 91 0.434 91 0.434 3011220 106.51 4544590 850 28.56 24.5	0.1645 20 48.4 3.5 5.58 2.59 20 40 91 0.328 2774700 98.14 4146760 850 28.58 24.5	0.1643 20 48.4 3.5 5.58 2.64 0.202 20 40 91 0.333 2766670 97.86 4136820 850 28.50 24.5	20 48.8 3.5 5.54 2.7 0.207 20 40 40 91 0.341 2701470 95.55 4061330 850 28.45 24.5	20 50.5 3.5 5.69 2.8 0.214 20 40 40 91 0.354 20 0.354 2701350 95.55 4071010 850 28.55 24.5	0.1643 20 52.7 3.5 5.91 2.87 0.22 20 40 40 40 91 0.362 94.81 4042520 850 28.50 24.5
NOX AS NO2 CO CO CO VOC VOC SO2 SUlfur Mist Filterable Particulates Filterable Particulates Formaldehyde Formaldehyde Formaldehyde Stack Exit Conditions (Includes Temperin Exhaust Kol Stack Vedocity, If/sec Stack Mass flow, per stack Stack Temperature Stack Mass (Includes Vedipt	Ib/MMBtu           ppmvd           lb/hr           jb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/h           lb/h           lb/h           lb/h           lb/h           lb/h           lb/h           jcfm           ft/sec           lb/h           'F	0.1644 20 74.8 3.5 8.61 4 0.306 20 41 1.82 1.012 3757960 132.92 5608670 850 28.25	0.1645 20 75.8 8.69 4.05 0.31 20 41 41 91 0.512 3770710 133.37 5632580 850 28.27	0.1643 20 81.5 3.5 9.19 4.36 0.334 20 41 41 91 0.551 3892970 137.70 5849350 5850 28.44	0.1645 20 71.3 3.5 8.11 3.69 0.283 20 41 41 91 0.467 3590930 127.01 5374070 8550 28.32	0.1644 20 73.1 3.5 8.31 0.292 20 41 41 91 0.482 	0.1643 20 81.6 3.5 9.17 4.32 0.33 20 41 41 91 0.546 3882510 137.33 5837670 850 28.46	0.1643 20 82.2 3.5 9.2 4.44 0.34 20 41 41 91 0.561 3840780 135.85 5787840 850 28.52	0.1645 20 83.1 3.5 9.27 4.5 0.345 20 41 41 0.570 91 0.570 3746470 132.52 5648540 850 28.53	0.1644 20 57.6 3.5 6.61 3.14 20 41 41 0.24 91 0.397 3133390 110.83 4686560 850 28.31	0.1645 20 59.1 3.5 6.77 3.22 0.247 20 41 91 0.407 3164760 111.94 4736710 850 28.33	0.1643 20 65.4 3.5 7.35 3.55 0.272 20 41 41 91 0.448 3265880 115.52 491550 850 850 28.49	0.1643 20 67.9 3.5 7.57 3.65 0.279 20 41 41 91 0.461 3220930 113.93 4858870 850 28.55	20 69.7 3.5 7.76 3.73 0.286 20 41 41 41 0.472 3186070 112.69 4808100 8550 28.56	20 52.1 3.5 6 2.91 0.223 20 40 40 91 9.1 0.367 2974170 105.20 4446630 850 28.30	20 53.3 3.5 6.13 2.98 20 40 40 40 91 91 91 91 9290470 105.78 4473700 850 8850	20 59.2 3.5 6.67 3.24 20 41 41 41 91 0.409 0.409 3041090 107.57 4576000 850 28.48	0.1645 20 615 3.5 6.87 3.33 0.255 20 41 41 91 0.421 3001580 106.17 4526780 850 28.54	0.1645 20 64 3.5 7.12 3.43 0.263 20 41 41 91 0.434 3011220 106.51 4544590 850 28.56	0.1645 20 48.4 3.5 5.58 2.59 0.199 20 40 40 91 0.328 2774700 98.14 4146760 850 28.28	0.1643 20 48.4 3.5 5.58 2.64 0.202 20 40 91 0.333 2766670 97.86 4136820 850 28.30	20 48.8 3.5 5.54 2.7 0.207 20 40 40 40 0.341 0.341 2701470 <b>95.55</b> 4061330 850 28.45	20 50.5 5.69 2.8 0.214 20 40 40 91 9.3 54 2701350 <b>95.55</b> 4071010 850 28.52	0.1643 20 52.7 3.5 5.91 2.87 0.22 20 40 40 40 91 0.362 2680550 94.81 4042520 850
NOX AS NO2 CO CO CO VOC VOC SO2 SUfur Mist Filterable Particulates Total Particulates Particulates Phylio/2.5 Formaldehyde Formaldehyde Formaldehyde Stack Exit Conditions (Includes Temperint Exhaust vol flow Exhaust Cas Stack Velocity, Ifviseo Stack Temperature Stack Masignow, per stack Stack Temperature Stack Meight Above Grade	Ib/MMBtu           ppmvd           lb/hr           jb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/h           lb/h           lb/h           lb/h           lb/h           lb/h           lb/h           jcfm           ft/sec           lb/h           'F	0.1644 20 74.8 3.5 8.61 4 0.306 20 41 182 1.012 3757960 132.92 5608670 850 28.25 24.5 150	0.1645 20 75.8 8.69 4.05 0.31 20 41 91 0.512 3770710 133.37 5632580 850 28.27 24.5	0.1643 20 81.5 9.19 4.36 0.334 20 41 41 41 91 0.551 3892970 137.70 5849350 850 28.44 24.5 150	0.1645 20 71.3 3.5 8.11 3.69 0.283 20 41 41 41 91 0.467 3590930 127.01 5374070 850 28.32 24.5 150	0.1644 20 73.1 3.5 8.31 3.81 0.292 20 41 41 41 91 0.482 3640610 128.77 5449600 850 28.33 24.5 150	0.1643 20 81.6 3.5 9.17 4.32 20 41 91 0.546 3882510 137.33 5837670 850 28.66 24.5	0.1643 20 82.2 3.5 9.2 4.44 0.34 20 41 91 0.561 3840780 135.85 5787840 850 28.52 24.5 150	0.1645 20 33.1 3.5 9.27 4.5 0.345 20 41 91 0.570 3746470 132.52 5648540 850 850 28.53 24.5 150	0.1644 20 57.6 3.5 6.61 3.14 0.24 20 41 91 0.397 3133390 110.83 4686560 850 28.31 24.5	0.1645 20 59.1 3.5 6.77 3.22 0.247 20 41 41 91 0.407 3164760 111.94 4736710 850 28.33 24.5 150	0.1643 20 65.4 3.5 7.35 3.55 0.272 20 41 91 0.448 3265880 115.52 4915560 850 28.49 24.5	0.1643 20 67.9 3.5 7.57 3.65 0.279 20 41 41 41 41 91 0.461 3220930 113.93 4858870 850 28.55 24.5 150	20 69.7 3.5 7.76 20 41 91 0.472 91 0.472 3186070 112.69 4808100 850 28.56 28.56 24.5 150	20 52.1 3.5 6 2.91 0.223 20 40 40 91 0.367 2974170 105.20 4446630 850 28.30 28.30 24.5	20 53.3 3.5 6.13 2.98 0.228 20 40 91 0.376 2990470 105.78 4473700 850 28.31 24.5 150	20 59.2 3.5 6.67 3.24 0.248 20 41 41 41 91 0.409 <b>107.57</b> 4576000 850 28.48 24.5	0.1645 20 61.5 3.5 6.87 3.33 0.255 20 41 91 0.421 3001580 106.17 4526780 850 28.54 24.5	0.1645 20 64 3.5 7.12 3.43 20 41 91 0.434 91 0.434 3011220 106.51 4544590 850 28.56 24.5	0.1645 20 48.4 3.5 5.58 2.59 20 40 40 40 40 40 40 40 40 40 4	0.1643 20 48.4 3.5 5.58 2.64 0.202 20 40 40 91 0.333 2766670 97.86 97.86 850 28.30 24.5 150	20 48.8 3.5 5.54 2.7 0.207 20 40 40 91 0.341 2701470 95.55 4061330 850 28.45 24.5	20 50.5 3.5 5.69 2.8 0.214 20 40 91 0.354 2701350 95.55 4071010 850 28.52 28.52 24.5 150	0.1643 20 52.7 3.5 5.91 2.87 0.22 20 40 40 40 91 0.362 2680550 94.81 4042520 850 28.54 24.5 150
NDX KS NO2 CO CO CO VOC VOC SO2 SUFUR MIST Filterable Particulates Filterable Particulates Formaldehyde Formaldehyde Formaldehyde Stack Exit Conditions (Includes Temperir Exhaust Gas Stack Velochy, Ifviseo Stack Mass flow, per stack Stack Temperture Stack Molecular Weight Stack Molecular Weight Stack Molecular Weight Stack Molecular Weight Stack Molecular Weight Stack Molecular Weight Stack Molecular Weight St	Ib/MMBtu           ppmvd           lb/hr           jb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/h           lb/h           lb/h           lb/h           lb/h           lb/h           lb/h           jcfm           ft/sec           lb/h           'F	0.1644 20 74.8 3.5 8.61 4 0.306 20 41 41 182 3757960 132.92 5608670 850 28.25 24.5 150 Case 1	0.1645 20 75.8 8.69 4.05 0.31 20 41 41 41 0.512 3770710 13.37 5632580 850 850 28.27 24.5 150 Case 6	0.1643 20 81.5 3.5 9.19 4.36 0.334 20 41 41 41 0.551 3892970 137.70 3892970 137.70 5849350 850 850 850 28.44 24.5 150 Case 11	0.1645 20 71.3 3.5 8.11 3.69 0.283 20 41 41 41 9.1 0.467 3590930 127.01 3590930 127.01 3574070 850 28.32 24.5 150 Case 2	0.1644 20 73.1 3.5 8.31 3.81 0.292 20 41 41 9 0.482 3640610 128.77 5449600 850 850 28.33 24.5 150 Case 7	0.1643 20 81.6 3.5 9.17 4.32 0.33 20 41 41 91 0.546 3882510 137.33 5837670 850 28.45 24.5 150 Case 12	0.1643 20 82.2 3.5 9.2 4.44 0.34 20 41 41 91 0.561 3840780 135.85 5787840 850 850 28.52 24.5 150 Case 16	0.1645 20 83.1 3.5 9.27 4.5 0.345 20 41 41 41 0.570 3746470 132.52 5648540 850 850 28.53 24.5 150 Case 20	0.1644 20 57.6 3.5 3.5 3.14 0.24 20 411 41 0.397 3133390 110.83 4686560 850 28.31 24.5 150	0.1645 20 59.1 3.5 6.77 3.22 0.247 20 41 41 41 91 0.407 3164760 111.94 4736710 850 28.33 24.5 150	0.1643 20 65.4 3.5 7.35 3.55 0.272 20 41 91 0.448 3265880 115.52 4915560 850 28.49 24.5 150	0.1643 20 67.9 3.5 7.57 3.65 0.279 20 41 41 91 10.461 3220930 11.93 458870 850 850 28.55 24.5 150 Case 17	20 69.7 3.5 7.76 3.73 0.286 20 41 41 91 0.472 3186070 850 850 850 850 28.56 24.5 150 Case 21	20 52.1 3.5 6 0.223 20 40 91 0.367 2974170 105.20 4446630 850 28.30 28.30 28.30	20 53.3 5.6.13 2.98 0.228 20 40 40 91 0.376 2990470 105.78 4473700 850 28.31 24.5 150 Case 9	20 59.2 3.5 6.67 3.24 0.248 20 41 41 91 0.409 3041090 107.57 4576000 850 28.48 24.5 150 Case 14	0.1645 20 61.5 3.5 6.87 3.3 0.255 20 41 41 41 91 0.421 3001580 106.17 4526780 850 28.54 24.5 150	0.1645 20 64 3.5 7.12 3.43 0.263 20 41 41 91 0.434 3011220 106.51 4544590 850 850 8550 28.56 24.5 150 Case 22	0.1645 20 48.4 3.5 5.58 2.59 20 40 40 91 0.328 2774700 <b>98.1</b> 4146760 850 850 28.58 150 Case 5	0.1643 20 48.4 3.5 5.58 2.64 40 40 91 0.333 2766670 97.86 4136820 850 850 28.30 24.5 150 Case 10	20 48.8 3.5 5.54 2.7 20 40 40 91 0.341 2701470 95.55 4061330 850 28.45 24.5 150 Case 15	20 50.5 3.5 5.69 2.8 0.214 20 40 91 0.354 0.354 2701350 <b>95</b> 55 4071010 850 28.52 24.5 150 Case 19	01643 20 52.7 3.5 5.91 2.87 0.22 20 40 91 0.362 2680550 94.81 4042520 850 28.54 224.5 150 Case 23
NOX AS NO2 CO CO CO VOC VOC SO2 So2 Solfur Mist Filterable Particulates Total Particulates Total Particulates Particulates Formaldehyde Formaldehyde Stack Kast Conditions (Includes Temperin Exhaust vol flow Exhaust Vol flow Exhaust Conditions (Includes Temperin Exhaust Conditions (Includes Temperin Conditions (Includes Temperin Conditi	Ib/MMBtu           ppmvd           lb/hr           jb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/h           lb/h           lb/h           lb/h           lb/h           lb/h           lb/h           jcfm           ft/sec           lb/h           'F	0.1644 20 74.8 3.5 8.61 4 0.306 20 41 182 1.012 1.012 3757960 132.92 5608670 850 28.25 24.5 15.0 28.25 24.5 10.086	0.1645 20 75.8 3.5 8.69 4.05 0.31 20 41 41 41 91 91 91 91 91 91 91 93770710 133.37 5632580 850 28.27 24.5 15.2 28.5 28.5 28.5 28.5 28.5 28.5 28.5 28.5 29.5 28.5 20	0.1643 20 81.5 9.19 4.36 0.334 20 41 41 41 91 0.551 3892970 137.70 5849350 850 28.44 24.5 28.44 24.5 10.86 28.44 24.5	0.1645 20 71.3 3.5 8.11 3.69 0.283 20 41 41 41 91 91 91 91 0.467 3590930 127.01 5374070 850 28.32 24.5 12.832 24.5 12.832 24.5 12.832 24.5 12.832 24.5 12.832 24.5 12.832 24.5 12.832 24.5 12.832 24.5 12.832 24.5 12.832 25.7 28.7 28.7 28.7 28.7 28.7 28.7 28.7 28	0.1644 20 73.1 3.5 8.31 0.292 20 41 41 41 0.482 3640610 128.77 5449600 850 850 28.33 24.5 150 Case 7 0.86	0.1643 20 81.6 9.17 4.32 0.33 20 41 41 41 91 0.546 3882510 137.33 5837670 850 28.46 28.46 28.45 150 Case 12 0.86	0.1643 20 82.2 9.2 4.44 0.34 20 41 41 91 0.561 3840780 135.85 5787840 850 28.52 24.5 24.5 24.5 Case 16 0.88	0.1645 20 83.1 3.5 9.27 4.5 0.345 20 41 41 91 0.570 3746470 132.52 5648540 850 28.53 24.5 132.52 28.53 24.5 132.52 28.53 28.54 28.55	0.1644 20 57.6 3.5 3.5 3.1 20 41 41 41 0.24 20 41 91 0.397 3133390 110.83 4686560 850 28.31 24.5 150 Case 3 0.86	0.1645 20 59.1 3.5 6.77 3.22 0.247 20 41 41 91 0.407 91 0.407 3164760 111.94 4736710 850 28.33 24.5 15.3 24.5 15.4 Case 8 0.86	0.1643 20 65.4 3.5 7.35 3.55 0.272 20 41 91 0.448 3265880 4915560 850 28.49 24.5 15.52 28.49 24.5 15.56 28.49 24.5 15.60 28.49 24.5 15.60 28.49 28.49 24.5 15.60 28.49	0.1643 20 67.9 3.5 7.57 3.65 0.279 20 41 41 41 91 91 0.461 3220930 413.93 4858870 855 28.55 28.55 24.5 15.55 24.5 10.28 28.55	20 69.7 3.5 7.76 3.73 0.286 20 41 91 0.472 3186070 112.69 4808100 850 28.56 24.5 150 Case 21 0.88	20 52.1 3.5 6 2.91 0.223 20 40 91 0.367 2974170 105.20 4446630 850 28.30 24.5 150 Case 4 0.86	20 53.3 3.5 6.13 2.98 0.228 20 40 91 0.376 2990470 105.78 4473700 828.31 24.5 150 Case 9 0.86	20 59.2 3.5 6.67 3.24 0.248 20 41 91 0.409 107.57 4576000 850 28.48 24.5 150 Case 14 0.87	0.1645 20 61.5 6.87 3.3 0.255 20 41 41 41 91 0.421 3001580 106.17 4526780 850 28.54 24.5 15.54 24.5 15.55 28.54 28.55 28.55 28.57 28.54 2	0.1645 20 64 3.5 7.12 20 41 41 91 0.434 91 0.434 91 0.434 50 850 28.56	0.1645 20 48.4 3.5 5.58 2.59 20 40 40 40 40 40 40 91 0.328 2774700 98.14 4146760 850 28.28 24.5 150 28.28 24.5 150 28.28 24.5 28.29 20 20 20 20 20 20 20 20 20 20	0.1643 20 48.4 3.5 5.58 2.64 0.202 20 40 40 91 0.333 2766670 97.86 4136820 850 28.30 24.5 150 28.30 24.5 150 28.30 24.5 10 28.30 20.33 28.30 28.50 28.50 20.566 20.566 20.576 28.30 28.50 28.50 20.566 20.566 20.576 20.576 20.576 20.576 20.576 20.576 20.576 20.576 20.576 20.576 20.576 20.576 20.576 20.576 20.576 20.577 20.577 20.5777 20.5777 20.5777 20.5777 20.57777 20.5777777 20.5777777777777777777777777777777777777	20 48.8 3.5 5.54 2.7 20 40 91 0.341 91 0.341 91 95.55 4061330 850 28.45 24.5 150 Case 15 0.87	20 50.5 3.5 5.69 2.8 0.214 20 40 40 91 0.354 2701350 95.5 4071010 850 28.52 28.52 28.52 28.52 28.52 28.52 28.52 28.52 28.52 28.52 28.52 28.52 28.52 28.52 28.53 28.53 28.53 28.53 28.53 28.53 28.53 28.53 28.53 28.53 28.53 29.55 29.55 29.55 29.55 29.55 29.55 29.55 29.55 29.55 28.55 29.55 20	0.1643 20 52.7 3.5 5.91 2.87 0.22 20 40 40 91 0.362 2680550 94.81 4042520 850 28.54 24.5 15.91 0.87
NDX AS NO2 CO CO CO VOC VOC SO2 SUfur Mist Filterable Particulates Total Particulates PM10/2.5 Formaldehyde Formaldehyde Formaldehyde Formaldehyde Stack Kat Conditions (Includes Temperir Exhaust Gas Stack Velochy, fiveo Stack Mass flow, per stack Stack Temperature Stack Molecular Weight Stack Molecular Weight Stack Height Above Grade EXHAUST ANALYSIS % VOL. Argon Nitrogen	Ib/MMBtu           ppmvd           lb/hr           jb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/h           lb/h           lb/h           lb/h           lb/h           lb/h           lb/h           jcfm           ft/sec           lb/h           'F	0.1644 20 74.8 3.5 8.61 4 0.306 20 41 182 1.012 3757960 132.92 5608670 850 28.25 24.5 150 Case 1 0.86	0.1645 20 75.8 3.5 8.69 4.05 0.31 20 41 91 0.512 5632580 850 28.27 24.5 150 Case 6 0.86 71.69	0.1643 20 81.5 9.19 4.36 0.334 20 41 20 41 91 0.551 3892970 137.70 5849350 850 28.44 24.5 150 Case 11 0.86	0.1645 20 71.3 3.5 8.11 3.69 0.283 20 41 91 0.467 5374070 850 28.32 24.5 150 Case 2 0.87 72.13	0.1644 20 73.1 3.5 8.31 3.81 0.292 20 41 91 0.482 3640610 128.77 5449600 5449600 5449600 5449500 545000 545000 545000 5450000 5450000 5450000 5450000000000	0.1643 20 81.6 3.5 9.17 4.32 20 41 91 0.546 3882510 137.33 5837670 5937670 5937670 5937670 5937670 5937670 5937670 59376700 5937670 5937700 59377000 59377000 5937700000000000000000000000000000000000	0.1643 20 82.2 3.5 9.2 4.44 0.34 20 0.34 20 0.561 0.561 135.85 5787840 850 28.52 24.5 150 Case 16 0.88 73.36	0.1645 20 83.1 3.5 9.27 4.5 0.345 20 20 20 41 41 41 91 0.570 3746470 132.52 5648540 850 28.53 24.5 150 Case 20 0.88 73.39	0.1644 20 57.6 6.61 3.14 0.24 41 91 0.397 10.83 4685560 850 850 850 28.31 24.5 150 Case 3 0.86 72.05	0.1645 20 59.1 3.5 6.77 3.22 0.247 20 41 91 0.407 41 91 3164760 111.94 4736710 850 28.33 24.5 150 Case 8 0.86 72.16	0.1643 20 65.4 3.5 7.35 3.55 0.272 20 41 41 91 0.448 3265880 115.52 4915560 850 28.49 24.5 150 Case 13 0.87 7.3.2	0.1643 20 67.9 3.5 7.57 3.65 0.279 20 41 91 0.461 3220930 113.93 4858870 850 28.55 24.5 150 Case 17 0.86 73.6	20 69.7 3.5 7.76 3.73 0.286 20 41 41 41 41 41 0.472 3186070 112.69 4808100 850 28.56 24.5 150 24.5 150	20 52.1 3.5 6 2.91 0.223 20 40 40 40 40 91 0.367 2974170 105.20 4446630 850 850 28.30 850 28.30 24.5 150 Case 4 0.864 72	20 53.3 3.5 6.13 2.98 0.228 20 40 40 40 0.376 2990470 105.78 4473700 850 850 850 28.31 150 Case 9 0.86 72.1	20 59.2 3.5 6.67 3.24 20 41 41 41 41 0.409 0.409 0.409 0.409 0.409 0.409 0.409 0.409 0.409 0.28.48 4556000 850 850 828.48 150 28.48 150 73.18	0 1645 20 61.5 6.87 3.3 0.255 20 41 91 0.421 91 0.421 91 0.421 106.17 4526780 850 850 28.54 24.5 150 Case 18 0.88 73.59	0.1645 20 64 3.5 7.12 3.43 20 41 91 0.434 91 0.434 91 0.434 91 0.651 454590 850 850 850 28.56 150 Case 22 0.86 73.69	0.1645 20 48.4 3.5 5.58 2.59 20 40 91 0.328 	0.1643 20 48.4 3.5 5.58 2.64 0.202 20 40 91 0.333 0.333 0.333 0.2766670 97.86 4136820 850 850 28.30 24.5 150 150 150 150 150 150 150 15	20 48.8 3.5 5.54 2.7 0.207 20 40 40 0.341 0.341 2701470 <b>95.5</b> 4061330 850 28.45 150 24.5 150 Case 15 0.87 73.09	20 50.5 3.5 5.69 2.8 0.214 20 40 0.354 0.354 0.354 2701350 <b>9555</b> 4071010 850 2252 24.5 150 Case 19 0.88 73.53	01643 20 52.7 3.5 5.91 2.87 0.22 20 40 91 0.362 2680550 94.81 4042520 850 850 855 850 28.5 150 150 150 150 150 100 100 10
NOX AS NO2 CO CO CO VOC VOC SO2 SUfur Mist Filterable Particulates Total Particulates Filterable Particulates Primaldehyde Formaldehyde Formaldehyde Stack Kit Conditions (Includes Temperin Exhaust Conditions (Includes Temp	Ib/MMBtu           ppmvd           lb/hr           jb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/h           lb/h           lb/h           lb/h           lb/h           lb/h           lb/h           jcfm           ft/sec           lb/h           'F	0.1644 20 74.8 3.5 8.61 4 1.02 20 41 1.02 1.02 5008670 1.02 5008670 1.02 28.25 24.5 1.0.86 71.53 1.5.2	0.1645 20 75.8 3.5 8.69 4.05 0.31 20 4.1 41 91 0.512 3770710 133.37 5632580 850 28.27 24.5 150 Case 6 0.86 71.69 13.52	0.1643 20 81.5 9.19 4.36 0.334 20 4.3 0.334 20 4.1 4.1 91 0.551 3892970 137.70 5849350 8849350 28.44 24.5 150 Case 11 0.86 72.82 13.58	0.1645 20 71.3 3.5 8.11 3.69 0.283 20 41 41 91 0.467 3590930 127.01 5374070 850 28.32 24.5 150 Case 2 0.87 72.13 13.88	0.1644 20 73.1 3.5 8.31 3.81 0.292 20 41 91 0.482 3640610 128.77 5449600 850 28.33 24.5 150 Case 7 0.86 72.15 13.79	0 1643 20 81.6 3.5 9.17 4.32 0.33 20 41 41 91 6 382510 13733 850 28.46 24.5 150 Case 12 0.86 72.97 13.66	0.1643 20 82.2 9.2 4.44 0.34 20 41 91 0.561 3840780 135.85 5787840 850 28.52 24.55 150 Case 16 0.88 73.36 13.53	0.1645 20 83.1 3.5 9.27 4.5 0.345 20 41 91 0.570 132.52 5648540 850 28.53 24.5 150 Case 20 0.88 7.3.39 13.3	0.1644 20 57.6 3.5 3.61 3.14 0.24 20 41 41 91 0.397 3133390 110.83 4686560 850 28.31 150 Case 3 0.86 72.05 14	0.1645 20 59.1 3.5 6.77 3.22 0.247 20 41 41 0.407 91 0.407 111.94 4736710 850 28.33 24.5 150 Case 8 0.286 72.16	0.1643 20 65.4 3.5 7.35 3.55 0.272 20 41 91 0.448 3265880 115.52 4915560 850 28.49 24.5 150 Case 13 0.87 7.3.5 13.6	0.1643 20 67.9 3.5 7.57 3.65 0.279 20 41 41 91 0.461 3220930 113.93 4558870 850 28.55 24.55 150 Case 17 0.88 73.6	20 69.7 3.5 7.76 20 41 41 91 0.472 3186070 412.69 4808100 850 28.56 28.5	20 52.1 3.5 6 2.91 0.223 20 40 91 0.367 2974170 105.20 4446630 850 28.30 28.30 28.30 28.5 150 Case 4 0.86 72 14.11	20 53.3 3.5 6.13 2.98 0.228 0.228 20 40 40 91 0.376 2990470 0.376 2990470 0.376 2990470 28.31 24.5 28.31 24.5 Case 9 0.86 7.2.1 14.05	20 59.2 3.5 6.67 3.24 0.248 20 41 41 91 0.409 3041090 107.57 4576000 850 28.48 24.5 150 Case 14 0.87 73.18 13.97	0 1645 20 61.5 6.87 3.35 20 41 91 941 941 941 942 3001580 106.17 4526780 850 28.54 24.5 150 Case 18 0.88 73.59 13.84	0.1645 20 64 3.5 7.12 3.43 0.263 20 41 41 91 0.434 91 0.434 91 0.434 91 0.434 50 106.51 4544590 844590 28.56 28.56 28.56 150 28.56 150 28.56 28.57 28.56 28.57 28.56 28.57 28.56 28.57 28.56 28.57 28.56 28.57 28.56 28.57 28.57 28.56 28.57	0 1645 20 48.4 3.5 5.58 2.59 20 40 40 40 91 0.199 20 40 40 91 0.328 28 28 28 28 28 28 28 28 28	0.1643 20 48.4 3.5 5.58 2.64 0.202 20 40 40 91 0.333 2766670 97.86 4136820 850 28.30 24.5 150 0.850 28.30 24.5 150 0.86 72.05 14.27	20 48.8 3.5 5.54 2.7 0.207 20 40 40 91 0.341 2701470 95.55 4061330 850 28.45 29.77 20 40 40 91 27.77 20 40 40 91 27.77 20 40 40 91 27.77 20 40 40 27.77 20 40 27.77 20 40 27.77 20 40 27.77 20 40 27.77 20 40 27.77 20 40 27.77 20 40 27.77 20 40 27.77 20 40 27.77 20 40 27.77 20 40 27.77 20 40 27.77 20 28.45 27.77 20 40 28.45 29.47 20.47 20.470 20	20 50.5 3.5 5.669 2.8 0.214 20 40 40 91 0.354 2701350 95.55 4071010 850 28.52 24.5 28.52 24.5 15.68 28.52 24.5 15.68 28.52 24.5 15.68 28.52 24.5 15.69 28.52 24.5 24.5 24.5 24.5 24.5 24.5 24.5 2	01643 20 20 5.2.7 3.5 5.91 2.87 0.22 20 40 40 40 91 0.362 2680550 94.81 4042520 850 28.54 24.5 150 Case 23 0.87 7.3.63
NOX AS NO2 CO CO CO VOC VOC SO2 SUfur Mist Filterable Particulates Total Particulates PMID(2.5 Formaldehyde Formaldehyde Formaldehyde Stack Exit Conditions (Includes Temperir Exhaust Gas Stack Velochy, Ifvise Stack Mass flow, per stack Stack Temperature Stack Molecular Weight Stack Molecular Weight Stack Molecular Weight Stack Height Above Grade EXHAUST ANALYSIS % VOL. Argon	Ib/MMBtu           ppmvd           lb/hr           jb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/hr           lb/h           lb/h           lb/h           lb/h           lb/h           lb/h           lb/h           jcfm           ft/sec           lb/h           'F	0.1644 20 74.8 3.5 8.61 4 0.306 20 41 182 1.012 3757960 132.92 5608670 850 28.25 24.5 150 Case 1 0.86	0.1645 20 75.8 3.5 8.69 4.05 0.31 20 41 91 0.512 3770710 133.37 5632580 850 28.27 24.5 150 Case 6 0.86 91	0.1643 20 81.5 9.19 4.36 0.334 20 41 20 41 91 0.551 3892970 137.70 5849350 850 28.44 24.5 150 Case 11 0.86	0.1645 20 71.3 3.5 8.11 3.69 0.283 20 41 91 0.467 5374070 850 28.32 24.5 150 Case 2 0.87 72.13	0.1644 20 73.1 3.5 8.31 3.81 0.292 20 41 91 0.482 3640610 128.77 5449600 5449600 5449600 5449500 545000 545000 545000 5450000 5450000 5450000 5450000000000	0.1643 20 81.6 3.5 9.17 4.32 20 41 91 0.546 3882510 137.33 5837670 5937670 5937670 5937670 5937670 5937670 5937670 59376700 5937670 5937670 5937670 5937770 5937670 5937700 59377000 59377000 5937700000000000000000000000000000000000	0.1643 20 82.2 3.5 9.2 4.44 0.34 20 0.34 20 0.561 0.561 135.85 5787840 850 28.52 24.5 150 Case 16 0.88 73.36	0.1645 20 83.1 3.5 9.27 4.5 0.345 20 20 20 41 41 41 91 0.570 3746470 132.52 5648540 850 28.53 24.5 150 Case 20 0.88 73.39	0.1644 20 57.6 6.61 3.14 0.24 41 91 0.397 10.83 4685560 850 850 850 28.31 24.5 150 Case 3 0.86 72.05	0.1645 20 59.1 3.5 6.77 3.22 0.247 20 41 91 0.407 41 91 3164760 111.94 4736710 850 28.33 24.5 150 Case 8 0.86 72.16	0.1643 20 65.4 3.5 7.35 3.55 0.272 20 41 41 91 0.448 3265880 115.52 4915560 850 28.49 24.5 150 Case 13 0.87 7.3.2	0.1643 20 67.9 3.5 7.57 3.65 0.279 20 41 91 0.461 3220930 113.93 4858870 850 28.55 24.5 150 Case 17 0.86 73.6	20 69.7 3.5 7.76 3.73 0.286 20 41 41 41 41 41 0.472 3186070 112.69 4808100 850 28.56 24.5 150 24.5 150	20 52.1 3.5 6 2.91 0.223 20 40 40 40 40 91 0.367 2974170 105.20 4446630 850 850 28.30 850 28.30 24.5 150 Case 4 0.864 72	20 53.3 3.5 6.13 2.98 0.228 20 40 40 40 0.376 2990470 105.78 4473700 850 850 850 28.31 150 Case 9 0.86 72.1	20 59.2 3.5 6.67 3.24 20 41 41 41 41 0.409 102.57 4576000 850 850 850 850 28.48 150 28.48 150	0 1645 20 61.5 6.87 3.3 0.255 20 41 91 0.421 	0.1645 20 64 3.5 7.12 3.43 20 41 91 0.434 91 0.434 91 0.434 91 0.651 454590 850 850 850 28.56 150 Case 22 0.86 73.69	0.1645 20 48.4 3.5 5.58 2.59 20 40 91 0.328 	0.1643 20 48.4 3.5 5.58 2.64 0.202 20 40 91 0.333 0.333 0.333 0.2766670 97.86 4136820 850 850 28.30 24.5 150 150 150 150 150 150 150 15	20 48.8 3.5 5.54 2.7 0.207 20 40 40 0.341 0.341 2701470 <b>95.5</b> 4061330 850 28.45 150 24.5 150 Case 15 0.87 73.09	20 50.5 3.5 5.69 2.8 0.214 20 40 0.354 0.354 0.354 2701350 <b>9555</b> 4071010 850 228.52 24.5 150 Case 19 0.88 73.53	01643 20 52.7 3.5 5.91 2.87 0.22 20 40 91 0.362 2680550 94.81 4042520 850 850 855 850 28.5 150 150 150 150 150 100 100 10

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Stack Exit Emissions (per unit)																								
NOx Volume fraction, dry, at 15 % O2	ppm	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
NOx mass flow rate (as NO2)	lb/hr	42.6	43.1	46.4	39.3	40.5	45.9	47.3	47.9	33.4	34.3	37.7	38.8	39.7	30.9	31.6	34.4	35.4	36.5	27.6	28	28.7	29.8	30.5
CO Volume fraction, dry, at 15 % O2	ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
CO mass flow rate	lb/hr	10.4	10.5	11.3	9.6	9.9	11.2	11.5	11.7	8.1	8.3	9.2	9.4	9.7	7.5	7.7	8.4	8.6	8.9	6.7	6.8	7	7.2	7.4
VOC Volume fraction, dry, at 15 % O2	ppm	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
VOC mass flow rate (as methane)	lb/hr	5.9	6	6.5	5.5	5.7	6.4	6.6	6.7	4.7	4.8	5.3	5.4	5.5	4.3	4.4	4.8	4.9	5.1	3.8	3.9	4	4.2	4.3
NH3 Volume fraction, dry, at 15 % O2	ppm	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
NH3 mass flow rate	lb/h	15.8	16	17.2	14.5	15	17	17.5	17.7	12.4	12.7	14	14.4	14.7	11.4	11.7	12.8	13.1	13.5	10.2	10.4	10.6	11	11.3
Formaldehyde	ppbvd @ 15% O2	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91
Formaldehyde	lb/h	0.506	0.512	0.551	0.467	0.482	0.546	0.561	0.570	0.397	0.407	0.448	0.461	0.472	0.367	0.376	0.409	0.421	0.434	0.328	0.333	0.341	0.354	0.362
Stack CO2 mass flow rate	lb/h	337142.86	340952.38	367619.05	310476.19	320952.38	363809.52	373333.33	378095.24	264761.9	271428.57	299047.62	306666.67	314285.71	244761.9	250476.19	272380.95	280000	288571.43	219047.62	221904.76	227619.05	236190.48	241904.76
CO2	lb/MWh	1645	1640	1629	1672	1660	1633	1608	1613	1782	1754	1677	1651	1676	1883	1850	1746	1723	1759	2127	2074	2032	2019	2050
SOx mass flow rate (as SO2)	lb/h	4	4.1	4.4	3.7	3.8	4.3	4.4	4.5	3.1	3.2	3.5	3.6	3.7	2.9	3	3.2	3.3	3.4	2.6	2.6	2.7	2.8	2.9
SOx	lb/Mmbtu	0.0018	0.0019	0.0019	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0019
Sulfur Mist as H2SO4	lb/h	2.7	2.7	2.9	2.5	2.6	2.9	3	3	2.1	2.2	2.4	2.5	2.5	2	2	2.2	2.2	2.3	1.8	1.8	1.8	1.9	1.9
Sulfur Mist as H2SO4	lb/Mmbtu	0.0012	0.0012	0.0012	0.0012	0.0013	0.0012	0.0012	0.0012	0.0012	0.0013	0.0012	0.0013	0.0012	0.0013	0.0012	0.0012	0.0012	0.0012	0.0013	0.0013	0.0012	0.0012	0.0012
Filterable Particulates	lb/h	23.9	23.9	24.0	23.7	23.8	24.0	24.0	23.9	23.6	23.6	23.6	23.4	23.3	23.6	23.6	23.4	23.3	23.2	23.3	23.3	23.2	23.2	23.0
Filterable Particulates	lb/MMBtu	0.0110	0.0108	0.0101	0.0118	0.0115	0.0102	0.0099	0.0097	0.0138	0.0134	0.0122	0.0118	0.0115	0.0149	0.0145	0.0133	0.0129	0.0124	0.0165	0.0162	0.0157	0.0152	0.0147
Total Particulates	lb/h	44.8	44.8	44.8	44.7	44.7	44.8	44.7	44.5	44.8	44.7	44.4	44.1	43.9	45	44.9	44.3	44	43.8	44.6	44.6	44.4	44.2	43.8
PM10/2.5	lb/h	44.8	44.8	44.8	44.7	44.7	44.8	44.7	44.5	44.8	44.7	44.4	44.1	43.9	45	44.9	44.3	44	43.8	44.6	44.6	44.4	44.2	43.8
PM10/2.5	lb/MMBtu	0.0205	0.0203	0.0189	0.0222	0.0215	0.0191	0.0185	0.0182	0.0262	0.0255	0.0230	0.0222	0.0216	0.0284	0.0277	0.0251	0.0243	0.0234	0.0316	0.0311	0.0301	0.0290	0.0280
																								I
																								L
SITE CONDITIONS	Units	Case 1	Case 6	Case 11	Case 2	Case 7	Case 12	Case 16	Case 20	Case 3	Case 8	Case 13	Case 17	Case 21	Case 4	Case 9	Case 14	Case 18	Case 22	Case 5	Case 10	Case 15	Case 19	Case 23
Elevation	ft	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
Site Pressure	psia	14.658	14.658	14.658	14.658	14.658	14.658	14.658	14.658	14.658	14.658	14.658	14.658	14.658	14.658	14.658	14.658	14.658	14.658	14.658	14.658	14.658	14.658	14.658
Exhaust Loss	in H2O	12.00 @ ISC																						I
Humidity		35.00% RH	43.00% RH	60.00% RH	35.00% RH	43.00% RH	60.00% RH	57.00% RH	57.00% RH	35.00% RH	43.00% RH	60.00% RH	57.00% RH	57.00% RH	35.00% RH	43.00% RH	60.00% RH	57.00% RH	57.00% RH	35.00% RH	43.00% RH	60.00% RH	57.00% RH	57.00% RH

Note: at -10F & RH 57% filter anti-icing will be on, but performance calculation doesn't inlcude impact of filter anti-icing "on"

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Emission information based on GE recommended measurement methods. NOx emissions are corrected to 15% O2 without heat rate correction and are not corrected to ISO reference condition per 40CFR 60.335(a)(1)(i). NOx levels shown will be controlled by algorithms within the SPEDTRONIC control system.

Sulfur emissions based on noted "WT%" or "pomw" noted after Sulfur Content values in the fuel. Particulates Note: US-Total PM Emissions (filterable + condensable) utilize compliance measurements per US-EPA Test Method 5B dated 1990 (filterable) and US-EPA Test Method 202 dated 1991 (condensable) measured at GT exhaust flange. Liquid Fuel is assumed to have 0.015% Fuel-Bound Nitrogen, or less. BN amounts greater than 0.015% will add to the reported NOx value.

Note: Modified Wobbe Index (MWI) is calculated as LHV/(Spec Gravity\*Temp)^0.5, in BTU/scf/\*R^0.5 Note: SCF is defined at 14.7 psi and 59°F

User: 204002079 Deck Access Level: 0 Job ID: Customer: Simulation Frame: 7F.05-0922T-L3 Date/Time: 4/8/23 3:34 PM GTP Web v5.70.1, 2023

# Table B-4: Startup and Shutdown Emissions and Fuel Use

Mode - Natural Gas	~ Time				Total	Pounds Per E	vent		
Mode - Natural Gas	(minutes)	NOX	СО	VOC	PM	PM <sub>10</sub> /PM <sub>2.5</sub>	SO2	CO2	Fuel (MMBTU/event)
Startup from GT Ignition to MECL	30.0	52	366	65	2	4	4	133,819	1,031
Shutdown from MECL to Fuel Cutoff	15.0	20	152	31	1	2	1	34,904	269
Mode - Fuel Oil	~ Time				Total	Pounds Per E	vent		
Mode - Fuel Oli	(minutes)	NOx	СО	VOC	РМ	PM <sub>10</sub> /PM <sub>2.5</sub>			Fuel
Startup from GT Ignition to 50% Steady-State GT Load	30.0	143	1,036	101	10	21	2	186,431	1,031
		62	246	47		10		48,626	

# Notes

1. All data is estimated, not guaranteed and is for one unit.

2. Emissions are based on new and clean conditions.

Sources: Dominion, 2023.

ECT, 2023.

#### Table B-5. Greenhouse Gas Emissions

Potential Carbon Dioxide Equivalent (CO <sub>2</sub> e)	Emissions from	the Combustion			n			r						r
				m Annual		CO <sub>2</sub>			CH <sub>4</sub>			N <sub>2</sub> O		CO <sub>2</sub> e
	Heat I		Operating	Potential	Emissions	Potential		Emissions	Potential I		Emissions	Potential		Potential
Emissions	(MMB		Hours	Heat Input	Factor:		t tpy)	Factor §	(short		Factor §		t tpy)	Emissions
Source		HHV	(hr/yr)	(MMBtu/yr)	(kg/MMBtu)	CO2	CO2e¥	(kg/MMBtu)	CH <sub>4</sub>	CO2e¥	(kg/MMBtu)	N <sub>2</sub> O	CO2e ¥	(short tpy)
Scenario 1 - NG Only, with SUSD CT1 - Steady State - NG		2,445	3,240	7,922,531	53.06	463,457	463,457	1.0E-03	8.73	218	1.0E-04	0.87	260	463,936
CT2 - Steady State - NG		2,445	3,240	7,922,531	53.06	463,457	463,457	1.0E-03	8.73	218	1.0E-04 1.0E-04	0.87	260	463,936
CT3 - Steady State - NG		2,445	3,240	7,922,531	53.06	463,457	463,457	1.0E-03	8.73	218	1.0E-04	0.87	260	463,936
CT4 - Steady State - NG		2,445	3,240	7,922,531	53.06	463,457	463,457	1.0E-03	8.73	218	1.0E-04	0.87	260	463,936
		MMBtu/event	events/yr											
CT1 SU - NG		1,031	500	515,650	53.06	30,165	30,165	1.0E-03	0.57	14	1.0E-04	0.06	17	30,196
CT1 SD - NG		269	500	134,500	53.06	7,868	7,868	1.0E-03	0.15	4	1.0E-04	0.01	4	7,876
CT2 SU - NG		1,031	500	515,650	53.06	30,165	30,165	1.0E-03	0.57	14	1.0E-04	0.06	17	30,196
CT2 SD - NG		269	500	134,500	53.06	7,868	7,868	1.0E-03	0.15	4	1.0E-04	0.01	4	7,876
CT3 SU - NG		1,031	500	515,650	53.06	30,165	30,165	1.0E-03	0.57	14	1.0E-04	0.06	17	30,196
CT3 SD - NG		269	500	134,500	53.06	7.868	7,868	1.0E-03	0.15	4	1.0E-04	0.01	4	7.876
CT4 SU - NG		1,031	500	515,650	53.06	30,165	30,165	1.0E-03	0.57	14	1.0E-04	0.06	17	30,196
CT4 SD - NG		269	500	134,500	53.06	7,868	7,868	1.0E-03	0.15	4	1.0E-04	0.01	4	7.876
cribb no		207	500	154,500	55.00	2,005,961	2,005,961	1.01 05	37.8	945.1	1.012 04	3.8	1127	2,008,033
				1		2,005,701	2,005,901	I	57.0	J40.1		5.0	1127	2,000,035
Seemonic 2 NC with Hudwaren				1				I						I
Scenario 2 - NG with Hydrogen		2.420	3.240	7.839.808	53.06	458.618	458,618	1.0E-03	8 64	216	1.0E-04	0.86	258	459.092
CT1 - Steady State - NG w/H2*		, .	-,	.,,										
CT2 - Steady State - NG w/H2*		2,420	3,240	7,839,808	53.06	458,618	458,618	1.0E-03	8.64	216	1.0E-04	0.86	258	459,092
CT3 - Steady State - NG w/H2*		2,420	3,240	7,839,808	53.06	458,618	458,618	1.0E-03	8.64	216	1.0E-04	0.86	258	459,092
CT4 - Steady State - NG w/H2*		2,420	3,240	7,839,808	53.06	458,618	458,618	1.0E-03	8.64	216	1.0E-04	0.86	258	459,092
		MMBtu/event	events/yr											
CT1 SU - NG		1,031	500	515,650	53.06	30,165	30,165	1.0E-03	0.57	14	1.0E-04	0.06	17	30,196
CT1 SD - NG		269	500	134,500	53.06	7.868	7.868	1.0E-03	0.15	4	1.0E-04	0.00	4	7.876
CT2 SU - NG		1,031	500	515,650	53.06	30,165	30,165	1.0E-03	0.57	14	1.0E-04	0.06	17	30,196
CT2 SD - NG		269	500	134,500	53.06	7,868	7,868	1.0E-03	0.15	4	1.0E-04	0.01	4	7,876
CT3 SU - NG		1,031	500	515,650	53.06	30,165	30,165	1.0E-03	0.57	14	1.0E-04	0.06	17	30,196
CT3 SD - NG		269	500	134,500	53.06	7,868	7,868	1.0E-03	0.15	4	1.0E-04	0.01	4	7,876
CT4 SU - NG		1,031	500	515,650	53.06	30,165	30,165	1.0E-03	0.57	14	1.0E-04	0.06	17	30,196
CT4 SD - NG		269	500	134,500	53.06	7,868	7,868	1.0E-03	0.15	4	1.0E-04	0.01	4	7,876
						1,986,604	1,986,604		37.4	936		3.7	1116	1,988,656
Scenario 3 - NG & Fuel Oil, with														
SUSD														
CT1 - Steady State - NG		2,445	2,490	6,088,612	53.06	356,176	356,176	1.0E-03	6.71	168	1.0E-04	0.67	200	356,543
CT2 - Steady State - NG		2,445	2,490	6,088,612	53.06	356,176	356,176	1.0E-03	6.71	168	1.0E-04	0.67	200	356,543
CT3 - Steady State - NG		2,445	2,490	6,088,612	53.06	356,176	356,176	1.0E-03	6.71	168	1.0E-04	0.67	200	356,543
		2,445	2,490						6.71		1.0E-04 1.0E-04		200	
CT4 - Steady State - NG				6,088,612	53.06	356,176	356,176	1.0E-03		168		0.67		356,543
CT1 - Steady State - FO		2,452	750	1,838,752	73.96	149,934	149,934	3.0E-03	6.08	152	6.0E-04		362	150,448
CT2 - Steady State - FO		2,452	750	1,838,752	73.96	149,934	149,934	3.0E-03	6.08	152	6.0E-04	1.22	362	150,448
CT3 - Steady State - FO		2,452	750	1,838,752	73.96	149,934	149,934	3.0E-03	6.08	152	6.0E-04	1.22	362	150,448
CT4 - Steady State - FO		2,452	750	1,838,752	73.96	149,934	149,934	3.0E-03	6.08	152	6.0E-04	1.22	362	150,448
		MMBtu/event	events/yr	1				I						I
CT1 SU - NG		1,031	380	391,894	53.06	22,925	22,925	1.0E-03	0.43	11	1.0E-04	0.04	13	22,949
CT1 SD - NG		269	380	102,220	53.06	5,980	5,980	1.0E-03	0.11	3	1.0E-04	0.01	3	5,986
CT2 SU - NG		1,031	380	391,894	53.06	22,925	22,925	1.0E-03	0.43	11	1.0E-04	0.04	13	22,949
CT2 SD - NG		269	380	102,220	53.06	5,980	5,980	1.0E-03	0.11	3	1.0E-04	0.04	3	5,986
CT3 SU - NG		1,031	380	391.894	53.06	22.925	22,925	1.0E-03	0.43	11	1.0E-04	0.04	13	22.949
CT3 SD - NG		269	380	102,220	53.06	5,980	5.980	1.0E-03	0.43	3	1.0E-04 1.0E-04	0.04	3	5,986
CT4 SU - NG		1,031	380	391,894	53.06	22,925	22,925	1.0E-03	0.11	11	1.0E-04 1.0E-04	0.01	13	22,949
CT4 SD - NG		269	380	102,220	53.06	5,980	5,980	1.0E-03	0.11	3	1.0E-04	0.01	3	5,986
CT1 SU - FO		1,031	120	123,756	73.96	10,091	10,091	3.0E-03	0.41	10	6.0E-04	0.08	24	10,126
CT1 SD - FO		269	120	32,280	73.96	2,632	2,632	3.0E-03	0.11	3	6.0E-04	0.02	6	2,641
CT2 SU - FO		1,031	120	123,756	73.96	10,091	10,091	3.0E-03	0.41	10	6.0E-04	0.08	24	10,126
CT2 SD - FO		269	120	32,280	73.96	2,632	2,632	3.0E-03	0.11	3	6.0E-04	0.02	6	2,641
CT3 SU - FO		1,031	120	123,756	73.96	10,091	10,091	3.0E-03	0.41	10	6.0E-04	0.08	24	10,126
CT3 SD - FO		269	120	32,280	73.96	2,632	2,632	3.0E-03	0.11	3	6.0E-04	0.02	6	2,641
CT4 SU - FO		1,031	120	123,756	73.96	10,091	10,091	3.0E-03	0.41	10	6.0E-04	0.08	24	10,126
CT4 SD - FO		269	120	32,280	73.96	2,632	2,632	3.0E-03	0.11	3	6.0E-04	0.02	6	2,641
		207	120	52,200	10.00	2,002	2,002	5.01 05	0.11	-	0.01.01	0.02	Ŭ	2,011
				1		2,190,950	2,190,950	I	55.42	1386		8.18	2438	2,194,773
				1		2,190,950	2,190,950	1	33.42	1360		0.10	2430	2,194,773
Auxiliary Equipment								1					1	1
		18.8	8,760	164,688	53.06	9,634	9,634	1.0E-03	0.182	4.54	1.0E-04	1.82E-02	5.41	9,644
FGH 1, Normal Operations														
FGH 1, Normal Operations FWP		1.45	500	726	73.96	59	59	3.0E-03	0.002	0.06	6.0E-04	4.80E-04	0.14	59
FGH 1, Normal Operations					73.96 73.96									

Potential Co	O2e Emissions from N	atural Gas Piping	Components and	Maintenance A	ctivities				Potential CO2e	Emissions from	Circuit Breakers		
		Emissions						Qua	ntity				
	Number	Factor per					Number	SF <sub>6</sub> Insula	ating Gas				
	of	Component		An	nual Emissions (t	tpy)	of	Per		Annual		Annual Emissions	•
Component	Components	(scf/hr) £	(scf/yr)	CO₂ ∂	$CH_4 \partial$	CO2e¥	Circuit	Component	Total	Leak Rate	s	F <sub>6</sub>	CO2e¥
Valve	640	0.027		0.09	3.08	77.15	Breakers	(lb)	(lb)	(%)	lb/yr	tpy	tpy
Connector	334	0.003		0.01	0.18	4.47	16	224	3,584	0.50	17.92	0.0090	204.29
Relief valve	40	0.04		0.01	0.29	7.14							
Maintenance			100,000	0.06	2.04	50.97							
		Total		0.16	5.58	139,73						Total	204.29

Total Facility Potential CO2e Emissio	ons
	Annual ¥ (tpy)
Simple Cycle Turbines	2,194,773
FGH 1	9,644
FWP	59
(6) Black Start Emergency Generators	8,279
NG piping and Maintenance	140
Circuit breakers	204
Total	2,213,100

‡ CO2 Emission factors based on the Mandatory Reporting of Greenhouse Gases, Final Rule; Federal Register Vol. 74, No. 209, October 30, 2009, Table C-1 to Subpart C of Part 98. §Mandatory Reporting of Greenhouse Gases, Final Rule; Federal Register Vol. 74, No. 209, October 30, 2009, Table C-2 to Subpart C of Part 98. §Mandatory Reporting of Greenhouse Gases, Final Rule; Federal Register Vol. 74, No. 209, October 30, 2009, Table C-2 to Subpart C of Part 98. §Mandatory Reporting of Greenhouse Gases, Final Rule; Federal Register Vol. 74, No. 209, October 30, 2009, Table C-2 to Subpart C of Part 98. §Mandatory Reporting of Greenhouse Gases, Final Rule; Federal Register Vol. 74, No. 209, October 30, 2009, Table C-2 to Subpart C of Part 98. §Mandatory Reporting of Greenhouse Gases, Final Rule; Federal Register Vol. 74, No. 209, October 30, 2009, Table C-2 to Subpart C of Part 98. §Mandatory Reporting of Greenhouse Gases, Final Rule; Federal Register Vol. 74, No. 209, October 30, 2009, Table C-1 to Subpart C of Part 98. §Mandatory Reporting of Greenhouse Gases, Final Rule; Federal Register Vol. 74, No. 209, October 30, 2009, Table C-1 to Subpart C of Part 98. §Mandatory Reporting of Greenhouse Gases, Final Rule; Federal Register Vol. 74, No. 209, October 30, 2009, Table C-1 to Subpart C of Part 98. §Mandatory Reporting of Subpart C of Part 98. §Mandatory Report Report

Sources: Dominion, 2023. ECT, 2023.

#### Table B-6. Turbine Hazardous Air Pollutant Emissions

GE 7F.05 Simple Cycle Turbine Emissions Calculation Summary of HAP Emission Rates - Scenario 1

Parameter	Units	NG
Maximum Heat Input (HHV):	MMBtu/hr	2,445
Maximum Annual Hours:	hrs/yr	3,240
SU/SD Events:	events/yr	500

Pollutant					Cl	T Emissions														
	Emission	Normal														y Firewater	(6) Bla			
	Factors	Operation	SUSD	CI	ſ1	(	CT2	C	Г3	Cl	Г4	(4) CTs	Fuel Gas	Heater 1	Pu	mp	Emergency	Generators	Total	Facility
	NG <sup>1</sup> (lb/MMBtu)	NG (lb/hr)	NG <sup>2</sup> (lb/event)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	Total Lb/Hr	Total TPY
1,3-Butadiene	4.3E-07	1.05E-03	5.59E-04	1.05E-03	1.84E-03	1.05E-03	1.84E-03	1.05E-03	1.84E-03	1.05E-03	1.84E-03	7.37E-03			5.68E-05	1.42E-05			4.26E-03	7.39E-03
Acetaldehyde	4.0E-05	9.78E-02	5.20E-02	9.78E-02	1.71E-01	9.78E-02	1.71E-01	9.78E-02	1.71E-01	9.78E-02	1.71E-01	6.86E-01	5.71E-05	2.50E-04	1.11E-03	2.78E-04	8.50E-04	1.27E-03	3.93E-01	6.88E-01
Acrolein	6.4E-06	1.56E-02	8.32E-03	1.56E-02	2.74E-02	1.56E-02	2.74E-02	1.56E-02	2.74E-02	1.56E-02	2.74E-02	1.10E-01	4.98E-05	2.18E-04	1.34E-04	3.36E-05	2.66E-04	3.99E-04	6.30E-02	1.10E-01
Benzene	1.2E-05	2.93E-02	1.56E-02	2.93E-02	5.14E-02	2.93E-02	5.14E-02	2.93E-02	5.14E-02	2.93E-02	5.14E-02	2.06E-01	1.07E-04	4.68E-04	1.35E-03	3.39E-04	2.62E-02	3.93E-02	1.45E-01	2.46E-01
Ethylbenzene	3.2E-05	7.82E-02	4.16E-02	7.82E-02	1.37E-01	7.82E-02	1.37E-01	7.82E-02	1.37E-01	7.82E-02	1.37E-01	5.49E-01	1.27E-04	5.57E-04					3.13E-01	5.49E-01
Formaldehyde <sup>3</sup>	7.1E-04	5.53E-01	9.23E-01	5.53E-01	1.13E+00	5.53E-01	1.13E+00	5.53E-01	1.13E+00	5.53E-01	1.13E+00	4.51E+00	2.27E-04	9.93E-04	1.71E-03	4.28E-04	2.66E-03	3.99E-03	2.22E+00	4.51E+00
Naphthalene	1.3E-06	3.18E-03	1.69E-03	3.18E-03	5.57E-03	3.18E-03	5.57E-03	3.18E-03	5.57E-03	3.18E-03	5.57E-03	2.23E-02	5.53E-06	2.42E-05	1.23E-04	3.08E-05	4.38E-03	6.58E-03	1.72E-02	2.89E-02
Polycyclic Aromatic Hydrocarbons (PAHs)	2.2E-06	5.38E-03	2.86E-03	5.38E-03	9.43E-03	5.38E-03	9.43E-03	5.38E-03	9.43E-03	5.38E-03	9.43E-03	3.77E-02	7.37E-06	3.23E-05	2.44E-04	6.10E-05	7.15E-03	1.07E-02	2.89E-02	4.85E-02
Propylene Oxide	2.9E-05	7.09E-02	3.77E-02	7.09E-02	1.24E-01	7.09E-02	1.24E-01	7.09E-02	1.24E-01	7.09E-02	1.24E-01	4.97E-01	9.77E-03	4.28E-02					2.93E-01	5.40E-01
Toluene	1.3E-04	3.18E-01	1.69E-01	3.18E-01	5.57E-01	3.18E-01	5.57E-01	3.18E-01	5.57E-01	3.18E-01	5.57E-01	2.23E+00	4.88E-04	2.14E-03	5.94E-04	1.48E-04	9.48E-03	1.42E-02	1.28E+00	2.25E+00
Xylene	6.4E-05	1.56E-01	8.32E-02	1.56E-01	2.74E-01	1.56E-01	2.74E-01	1.56E-01	2.74E-01	1.56E-01	2.74E-01	1.10E+00	3.63E-04	1.59E-03	4.14E-04	1.03E-04	6.51E-03	9.76E-03	6.33E-01	1.11E+00
Arsenic	2.0E-07	4.79E-04	2.55E-04	4.79E-04	8.40E-04	4.79E-04	8.40E-04	4.79E-04	8.40E-04	4.79E-04	8.40E-04	3.36E-03	3.69E-06	1.61E-05					1.92E-03	3.38E-03
Beryllium	1.2E-08	2.88E-05	1.53E-05	2.88E-05	5.04E-05	2.88E-05	5.04E-05	2.88E-05	5.04E-05	2.88E-05	5.04E-05	2.02E-04	2.21E-07	9.69E-07					1.15E-04	2.03E-04
Cadmium	1.1E-06	2.64E-03	1.40E-03	2.64E-03	4.62E-03	2.64E-03	4.62E-03	2.64E-03	4.62E-03	2.64E-03	4.62E-03	1.85E-02	2.03E-05	8.88E-05					1.06E-02	1.86E-02
Chromium	1.4E-06	3.36E-03	1.78E-03	3.36E-03	5.88E-03	3.36E-03	5.88E-03	3.36E-03	5.88E-03	3.36E-03	5.88E-03	2.35E-02	2.58E-05	1.13E-04					1.35E-02	2.36E-02
Cobalt	8.2E-08	2.01E-04	1.07E-04	2.01E-04	3.53E-04	2.01E-04	3.53E-04	2.01E-04	3.53E-04	2.01E-04	3.53E-04	1.41E-03	1.55E-06	6.78E-06					8.07E-04	1.42E-03
Lead	4.9E-07	1.20E-03	6.37E-04	1.20E-03	2.10E-03	1.20E-03	2.10E-03	1.20E-03	2.10E-03	1.20E-03	2.10E-03	8.40E-03	4.61E-06	4.04E-05	1.31E-05	3.27E-06	3.04E-04	4.55E-04	5.12E-03	8.90E-03
Manganese	3.7E-07	9.11E-04	4.84E-04	9.11E-04	1.60E-03	9.11E-04	1.60E-03	9.11E-04	1.60E-03	9.11E-04	1.60E-03	6.39E-03	7.00E-06	3.07E-05					3.65E-03	6.42E-03
Mercury	2.5E-07	6.23E-04	3.31E-04	6.23E-04	1.09E-03	6.23E-04	1.09E-03	6.23E-04	1.09E-03	6.23E-04	1.09E-03	4.37E-03	4.79E-06	2.10E-05					2.50E-03	4.39E-03
Nickel	2.1E-06	5.03E-03	2.68E-03	5.03E-03	8.82E-03	5.03E-03	8.82E-03	5.03E-03	8.82E-03	5.03E-03	8.82E-03	3.53E-02	3.87E-05	1.70E-04					2.02E-02	3.55E-02
Selenium	2.4E-08	5.75E-05	3.06E-05	5.75E-05	1.01E-04	5.75E-05	1.01E-04	5.75E-05	1.01E-04	5.75E-05	1.01E-04	4.03E-04	4.42E-07	1.94E-06					2.31E-04	4.05E-04
Hexane													8.48E-05	3.71E-04					8.48E-05	3.71E-04
Max. individual HAP								1				4.51								4.51
Total HAPs	1											10.05								10.19

Notes: CT = Combustion Turbine

<sup>1</sup> EPA AP-42, Table 3.1-3, April 2000. And EPA AP-42, Table 1.4-3 and 1.4-4, July 1998.

<sup>2</sup>NG SUSD (ib of HAP/event) = [Fuel consumed for startup (MMBtu fuel NG/event) + Fuel consumed for shutdown (MMBtu fuel NG/event)] x NG Emission Factor (ib of HAP/MMBtu). Each 'event' is calculated as a combined one startup and one shutdown event.

<sup>3</sup>Formdehyde normal operation based on vendor performance data

Source: ECT, 2023.

#### Table B-7. Turbine Hazardous Air Pollutant Emissions

GE 7F.05 Simple Cycle Turbine Emissions Calculation Summary of HAP Emission Rates - Scenario 2

Parameter	Units	NG w/H2
Maximum Heat Input (HHV)1:	MMBtu/hr	2,420
Maximum Annual Hours:	hrs/yr	3,240
SU/SD Events:	events/yr	500

Pollutant					CI	Emissions														
	Emission Factors	Normal Operation	SUSD	CI	1	C	CT2	C	Г3	C'	T4	(4) CTs	Fuel Gas	s Heater 1		y Firewater mp	(6) Blac Emergency		Total	Facility
	NG <sup>2</sup> (lb/MMBtu)	NG w H2 (lb/hr)	NG <sup>3</sup> (lb/event)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(4)	(4)	(lb/hr)	(tpv)	(lb/hr)	(4)	(lb/hr)	(4)	Total Lb/Hr	Total TPY
IAD - P	(10,112,122,12)	(19,111)			(12)			(	5112/		(tpy)	(tpy)	(10/nr)	(tpy)	(10,122)	(tpy)	(ID/NF)	(tpy)		7.32E-03
1,3-Butadiene Acetaldehyde	4.3E-07 4.0E-05	1.04E-03	5.59E-04 5.20E-02	1.04E-03	1.83E-03 1.70E-01	1.04E-03	1.83E-03 1.70E-01	1.04E-03 9.68E-02	1.83E-03 1.70E-01	1.04E-03 9.68E-02	1.83E-03 1.70E-01	7.30E-03 6.79E-01	5.71E-05	2.50E-04	5.68E-05 1.11E-03	1.42E-05 2.78E-04	8.50E-04	1.27E-03	4.22E-03 3.89E-01	7.32E-03 6.81E-01
Acrolein		9.68E-02 1.55E-02	5.20E-02 8.32E-03	9.68E-02 1.55E-02		9.68E-02 1.55E-02		9.68E-02 1.55E-02		9.68E-02 1.55E-02		6.79E-01			1.34E-04		8.50E-04 2.66E-04	1.2/E-03 3.99E-04		6.81E-01 1.09E-01
	6.4E-06	1.55E-02 2.90E-02	8.32E-03	1.55E-02 2.90E-02	2.72E-02 5.09E-02	1.55E-02 2.90E-02	2.72E-02 5.09E-02	1.55E-02 2.90E-02	2.72E-02 5.09E-02	1.55E-02 2.90E-02	2.72E-02 5.09E-02	2.04E-01	4.98E-05 1.07E-04	2.18E-04 4.68E-04	1.34E-04 1.35E-03	3.36E-05 3.39E-04	2.66E-04 2.62E-02	3.99E-04 3.93E-02	6.24E-02 1.44E-01	2.44E-01
Benzene		=17 011 01			01071 01		0107 = 01		1.36E-01	2.90E-02 7.74E-02					1.55E-05	3.39E-04	2.02E-02	3.93E-02		2.44E-01 5.44E-01
Ethylbenzene	3.2E-05	7.74E-02	4.16E-02	7.74E-02	1.36E-01	7.74E-02	1.36E-01	7.74E-02			1.36E-01	5.43E-01	1.27E-04	5.57E-04					3.10E-01	
Formaldehyde <sup>4</sup>	7.1E-04	5.48E-01	9.23E-01	5.48E-01	1.12E+00	5.48E-01	1.12E+00	5.48E-01	1.12E+00	5.48E-01	1.12E+00	4.47E+00	2.27E-04	9.93E-04	1.71E-03	4.28E-04	2.66E-03	3.99E-03	2.20E+00	4.48E+00
Naphthalene	1.3E-06	3.15E-03	1.69E-03	3.15E-03	5.52E-03	3.15E-03	5.52E-03	3.15E-03	5.52E-03	3.15E-03	5.52E-03	2.21E-02	5.53E-06	2.42E-05	1.23E-04	3.08E-05	4.38E-03	6.58E-03	1.71E-02	2.87E-02
Polycyclic Aromatic Hydrocarbons (PAHs)	2.2E-06	5.32E-03	2.86E-03	5.32E-03	9.34E-03	5.32E-03	9.34E-03	5.32E-03	9.34E-03	5.32E-03	9.34E-03	3.74E-02	7.37E-06	3.23E-05	2.44E-04	6.10E-05	7.15E-03	1.07E-02	2.87E-02	4.82E-02
Propylene Oxide	2.9E-05	7.02E-02	3.77E-02	7.02E-02	1.23E-01	7.02E-02	1.23E-01	7.02E-02	1.23E-01	7.02E-02	1.23E-01	4.92E-01	9.77E-03	4.28E-02					2.90E-01	5.35E-01
Toluene	1.3E-04	3.15E-01	1.69E-01	3.15E-01	5.52E-01	3.15E-01	5.52E-01	3.15E-01	5.52E-01	3.15E-01	5.52E-01	2.21E+00	4.88E-04	2.14E-03	5.94E-04	1.48E-04	9.48E-03	1.42E-02	1.27E+00	2.22E+00
Xylene	6.4E-05	1.55E-01	8.32E-02	1.55E-01	2.72E-01	1.55E-01	2.72E-01	1.55E-01	2.72E-01	1.55E-01	2.72E-01	1.09E+00	3.63E-04	1.59E-03	4.14E-04	1.03E-04	6.51E-03	9.76E-03	6.27E-01	1.10E+00
Arsenic	2.0E-07	4.74E-04	2.55E-04	4.74E-04	8.32E-04	4.74E-04	8.32E-04	4.74E-04	8.32E-04	4.74E-04	8.32E-04	3.33E-03	3.69E-06	1.61E-05					1.90E-03	3.35E-03
Beryllium	1.2E-08	2.85E-05	1.53E-05	2.85E-05	4.99E-05	2.85E-05	4.99E-05	2.85E-05	4.99E-05	2.85E-05	4.99E-05	2.00E-04	2.21E-07	9.69E-07					1.14E-04	2.01E-04
Cadmium	1.1E-06	2.61E-03	1.40E-03	2.61E-03	4.58E-03	2.61E-03	4.58E-03	2.61E-03	4.58E-03	2.61E-03	4.58E-03	1.83E-02	2.03E-05	8.88E-05					1.05E-02	1.84E-02
Chromium	1.4E-06	3.32E-03	1.78E-03	3.32E-03	5.83E-03	3.32E-03	5.83E-03	3.32E-03	5.83E-03	3.32E-03	5.83E-03	2.33E-02	2.58E-05	1.13E-04					1.33E-02	2.34E-02
Cobalt	8.2E-08	1.99E-04	1.07E-04	1.99E-04	3.50E-04	1.99E-04	3.50E-04	1.99E-04	3.50E-04	1.99E-04	3.50E-04	1.40E-03	1.55E-06	6.78E-06					7.99E-04	1.41E-03
Lead	4.9E-07	1.19E-03	6.37E-04	1.19E-03	2.08E-03	1.19E-03	2.08E-03	1.19E-03	2.08E-03	1.19E-03	2.08E-03	8.32E-03	4.61E-06	4.04E-05	1.31E-05	3.27E-06	3.04E-04	4.55E-04	5.07E-03	8.82E-03
Manganese	3.7E-07	9.01E-04	4.84E-04	9.01E-04	1.58E-03	9.01E-04	1.58E-03	9.01E-04	1.58E-03	9.01E-04	1.58E-03	6.33E-03	7.00E-06	3.07E-05					3.61E-03	6.36E-03
Mercury	2.5E-07	6.17E-04	3.31E-04	6.17E-04	1.08E-03	6.17E-04	1.08E-03	6.17E-04	1.08E-03	6.17E-04	1.08E-03	4.33E-03	4.79E-06	2.10E-05					2.47E-03	4.35E-03
Nickel	2.1E-06	4.98E-03	2.68E-03	4.98E-03	8.74E-03	4.98E-03	8.74E-03	4.98E-03	8.74E-03	4.98E-03	8.74E-03	3.50E-02	3.87E-05	1.70E-04					2.00E-02	3.51E-02
Selenium	2.4E-08	5.69E-05	3.06E-05	5.69E-05	9.99E-05	5.69E-05	9.99E-05	5.69E-05	9.99E-05	5.69E-05	9.99E-05	4.00E-04	4.42E-07	1.94E-06					2.28E-04	4.01E-04
Hexane													8.48E-05	3.71E-04					8.48E-05	3.71E-04
Max. individual HAP	1	1										4.47								4.48
Total HAPs	1											9.96	1							4.48

Notes:

CT = Combustion Turbine

1 Based on natural gas component of total NG/H2 heat input

<sup>2</sup> EPA AP-42, Table 3.1-3, April 2000. And EPA AP-42, Table 1.4-3 and 1.4-4, July 1998.

<sup>3</sup>NG SUSD (lb of HAP/event) = [Fuel consumed for startup (MMBtu fuel NG/event) + Fuel consumed for shutdown (MMBtu fuel NG/event)] x NG Emission Factor (lb of HAP/MMBtu). Each 'event' is calculated as a combined one startup and one shutdown event.

<sup>4</sup>Formdehyde normal operation based on vendor performance data

Source: ECT, 2023.

#### Table B-8. Turbine Hazardous Air Pollutant Emissions

GE 7F.05 Simple Cycle Turbine Emissions Calculation Summary of HAP Emission Rates - Scenario 3

Parameter	Units	NG	FO
Maximum Heat Input (HHV):	MMBtu/hr	2,445	2,452
Maximum Annual Hours:	hrs/yr	2,490	750
SU/SD Events:	events/yr	380	120

Pollutant							С	T Emissions															
	Emission	Factors	Normal (	Operation	su	SD	с	T1	C	T2	с	Т3	с	T4	(4) CTs	Fuel Ga	s Heater 1	Emergency Pu			ck Start rgency rators	Total	Facility
	NG <sup>1</sup> (lb/MMBtu)	FO <sup>2</sup> (lb/MMBtu)	NG (lb/hr)	FO (lb/hr)	NG <sup>3</sup> (lb/event)	FO <sup>4</sup> (lb/event)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	Total Lb/Hr	Total TPY
1,3-Butadiene	4.3E-07	1.6E-05	1.05E-03	3.92E-02	5.59E-04	2.08E-02	3.92E-02	1.74E-02	3.92E-02	1.74E-02	3.92E-02	1.74E-02	3.92E-02	1.74E-02	6.95E-02			5.68E-05	1.42E-05			1.57E-01	6.95E-02
Acetaldehyde	4.0E-05		9.78E-02		5.20E-02		9.78E-02	1.32E-01	9.78E-02	1.32E-01	9.78E-02	1.32E-01	9.78E-02	1.32E-01	5.27E-01	5.71E-05	2.50E-04	1.11E-03	2.78E-04	8.50E-04	1.27E-03	3.93E-01	5.28E-01
Acrolein	6.4E-06		1.56E-02		8.32E-03		1.56E-02	2.11E-02	1.56E-02	2.11E-02	1.56E-02	2.11E-02	1.56E-02	2.11E-02	8.43E-02	4.98E-05	2.18E-04	1.34E-04	3.36E-05	2.66E-04	3.99E-04	6.30E-02	8.49E-02
Benzene	1.2E-05	5.5E-05	2.93E-02	1.35E-01	1.56E-02	7.15E-02	1.35E-01	9.44E-02	1.35E-01	9.44E-02	1.35E-01	9.44E-02	1.35E-01	9.44E-02	3.77E-01	1.07E-04	4.68E-04	1.35E-03	3.39E-04	2.62E-02	3.93E-02	5.67E-01	4.17E-01
Ethylbenzene	3.2E-05		7.82E-02		4.16E-02		7.82E-02	1.05E-01	7.82E-02	1.05E-01	7.82E-02	1.05E-01	7.82E-02	1.05E-01	4.21E-01	1.27E-04	5.57E-04					3.13E-01	4.22E-01
Formaldehyde <sup>5</sup>	7.1E-04	2.8E-04	5.53E-01	1.01E+00	9.23E-01	3.64E-01	1.01E+00	1.27E+00	1.01E+00	1.27E+00	1.01E+00	1.27E+00	1.01E+00	1.27E+00	5.06E+00	2.27E-04	9.93E-04	1.71E-03	4.28E-04	2.66E-03	3.99E-03	4.05E+00	5.07E+00
Naphthalene	1.3E-06	3.5E-05	3.18E-03	8.58E-02	1.69E-03	4.55E-02	8.58E-02	3.92E-02	8.58E-02	3.92E-02	8.58E-02	3.92E-02	8.58E-02	3.92E-02	1.57E-01	5.53E-06	2.42E-05	1.23E-04	3.08E-05	4.38E-03	6.58E-03	3.48E-01	1.63E-01
Polycyclic Aromatic Hydrocarbons (PAHs)	2.2E-06	4.0E-05	5.38E-03	9.81E-02	2.86E-03	5.20E-02	9.81E-02	4.71E-02	9.81E-02	4.71E-02	9.81E-02	4.71E-02	9.81E-02	4.71E-02	1.89E-01	7.37E-06	3.23E-05	2.44E-04	6.10E-05	7.15E-03	1.07E-02	4.00E-01	1.99E-01
Propylene Oxide	2.9E-05		7.09E-02		3.77E-02		7.09E-02	9.54E-02	7.09E-02	9.54E-02	7.09E-02	9.54E-02	7.09E-02	9.54E-02	3.82E-01	9.77E-03	4.28E-02					2.93E-01	4.25E-01
Toluene	1.3E-04		3.18E-01		1.69E-01		3.18E-01	4.28E-01	3.18E-01	4.28E-01	3.18E-01	4.28E-01	3.18E-01	4.28E-01	1.71E+00	4.88E-04	2.14E-03	5.94E-04	1.48E-04	9.48E-03	1.42E-02	1.28E+00	1.73E+00
Xylene	6.4E-05		1.56E-01		8.32E-02		1.56E-01	2.11E-01	1.56E-01	2.11E-01	1.56E-01	2.11E-01	1.56E-01	2.11E-01	8.43E-01	3.63E-04	1.59E-03	4.14E-04	1.03E-04	6.51E-03	9.76E-03	6.33E-01	8.54E-01
Arsenic	2.0E-07	1.1E-05	4.79E-04	2.70E-02	2.55E-04	1.43E-02	2.70E-02	1.16E-02	2.70E-02	1.16E-02	2.70E-02	1.16E-02	2.70E-02	1.16E-02	4.65E-02	3.69E-06	1.61E-05					1.08E-01	4.65E-02
Beryllium	1.2E-08	3.1E-07	2.88E-05	7.60E-04	1.53E-05	4.03E-04	7.60E-04	3.48E-04	7.60E-04	3.48E-04	7.60E-04	3.48E-04	7.60E-04	3.48E-04	1.39E-03	2.21E-07	9.69E-07					3.04E-03	1.39E-03
Cadmium	1.1E-06	4.8E-06	2.64E-03	1.18E-02	1.40E-03	6.24E-03	1.18E-02	8.34E-03	1.18E-02	8.34E-03	1.18E-02	8.34E-03	1.18E-02	8.34E-03	3.33E-02	2.03E-05	8.88E-05					4.71E-02	3.34E-02
Chromium	1.4E-06	1.1E-05	3.36E-03	2.70E-02	1.78E-03	1.43E-02	2.70E-02	1.55E-02	2.70E-02	1.55E-02	2.70E-02	1.55E-02	2.70E-02	1.55E-02	6.20E-02	2.58E-05	1.13E-04					1.08E-01	6.21E-02
Cobalt	8.2E-08		2.01E-04		1.07E-04		2.01E-04	2.71E-04	2.01E-04	2.71E-04	2.01E-04	2.71E-04	2.01E-04	2.71E-04	1.08E-03	1.55E-06	6.78E-06					8.07E-04	1.09E-03
Lead	4.9E-07	1.4E-05	1.20E-03	3.43E-02	6.37E-04	1.82E-02	3.43E-02	1.56E-02	3.43E-02	1.56E-02	3.43E-02	1.56E-02	3.43E-02	1.56E-02	6.23E-02	4.61E-06	4.04E-05	1.31E-05	3.27E-06	3.04E-04	4.55E-04	1.38E-01	6.28E-02
Manganese	3.7E-07	7.9E-04	9.11E-04	1.94E+00	4.84E-04	1.03E+00		7.89E-01	1.94E+00	7.89E-01	1.94E+00	7.89E-01	1.94E+00	7.89E-01	3.16E+00	7.00E-06	3.07E-05					7.75E+00	3.16E+00
Mercury	2.5E-07	1.2E-06	6.23E-04	2.94E-03	3.31E-04	1.56E-03	2.94E-03	2.04E-03	2.94E-03	2.04E-03	2.94E-03	2.04E-03	2.94E-03	2.04E-03	8.14E-03	4.79E-06	2.10E-05					1.18E-02	8.16E-03
Nickel	2.1E-06	4.6E-06	5.03E-03	1.13E-02	2.68E-03	5.98E-03	1.13E-02	1.14E-02	1.13E-02	1.14E-02	1.13E-02	1.14E-02	1.13E-02	1.14E-02	4.55E-02	3.87E-05	1.70E-04					4.51E-02	4.56E-02
Selenium	2.4E-08	2.5E-05	5.75E-05	6.13E-02	3.06E-05	3.25E-02	6.13E-02	2.50E-02	6.13E-02	2.50E-02	6.13E-02	2.50E-02	6.13E-02	2.50E-02	1.00E-01	4.42E-07	1.94E-06	I				2.45E-01	1.00E-01
Hexane		ļ		ļ												8.48E-05	3.71E-04	I				8.48E-05	3.71E-04
		I		I																		لــــــــــــــــــــــــــــــــــــــ	
Max. individual HAP	-														5.06							ļ	5.07
Total HAPs															13.34								13.48

Notes: CT = Combustion Turbine

<sup>1</sup> EPA AP-42, Table 3.1-3, April 2000. And Table 1.4-3 and 1.4-4, July 1998.

<sup>2</sup> EPA AP-42, Table 3.1-4 and 3.1-5, April 2000.

<sup>3</sup>NG SUSD (lb of HAP/event) = [Fuel consumed for startup (MMBtu fuel NG/event) + Fuel consumed for shutdown (MMBtu fuel NG/event)] x NG Emission Factor (lb of HAP/MMBtu). Each 'event' is calculated as a combined one startup and one shutdown event.

<sup>4</sup>FO SUSD (b of HAP/event) = [Fuel consumed for startup (MMBtu fuel FO/event) + Fuel consumed for shutdown (MMBtu fuel FO/event)] x FO Emission Factor (lb of HAP/MMBtu). Each 'event' is calculated as a combined one startup and one shutdown event.

<sup>5</sup>Formdehyde normal operation based on vendor performance data

Source: ECT, 2023.

Table B-3. Dominion's chesterneid Energy Kenability Genter - Turbine Emissions Scenarios i Toject Summary	Table B-9. Dominion's Chesterfield Energy Reliability Center - Turbine Emissions Scenarios Project Summary	
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						Pollu	itants				
Scenario		NO <sub>x</sub>	CO	VOC	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	H <sub>2</sub> SO <sub>4</sub>	Pb	GHG
		(tpy)	(tpy)	(tpy)	(tpy)	(tpy)	(tpy)	(tpy)	(tpy)	(tpy)	(tpy)
Scenario 1 - 3,240 hours	Natural Gas Only; NG SUSD										
	Total Emissions	276.06	634.95	141.10	53.76	101.50	101.50	26.72	17.93	8.77E-03	2,026,360
Scenario 2 - 3,240 hours	of Natural Gas With Up To 10%	Hydrogen; N	G SUSD								
	Total Emissions	274.12	634.30	141.10	53.38	100.85	100.85	25.18	17.33	8.69E-03	2,006,983
Scenario 3 - 2,490 hour o	of Natural Gas with 750 hours of l	Fuel Oil; NG	and FO SU	SD							
	Total Emissions	344.86	818.79	158.85	81.59	153.66	153.66	27.89	18.66	6.28E-02	2,213,100
Overall maximum	Total Emissions	344.86	818.79	158.85	81.59	153.66	153.66	27.89	18.66	0.06	2,213,100
	PSD SER	40.00	100.00	40.00	25.00	15.00	10.00	40.00	7.00	0.60	75,000
	Netting Required	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes

Source: Dominion, 2023 ECT, 2023. Table B-10. Dominion's Chesterfield Energy Reliability Center - Proposed Peaker Emissions and Comparison with the respective SERs

Pollutant	PTE (tpy)	SER (tpy)	Netting Required
NO <sub>x</sub>	344.86	40	Yes
CO	818.79	100	Yes
VOC	158.85	40	Yes
PM <sup>2</sup>	81.59	25	Yes
PM <sub>10</sub>	153.66	15	Yes
PM <sub>2.5</sub>	153.66	10	Yes
SO <sub>2</sub>	27.89	40	No
$H_2SO_4$	18.66	7	Yes
Lead	0.06	0.6	No
GHG*	2,213,100	75,000	Yes

# Notes:

"Significant" means, in reference to a net emissions increase, a significant emissions increase or the potential of a source to emit a regulated NSR pollutant, or a rate of emissions that would equal or exceed any of the following rates (SER-Significant Emission Rates) as shown in table above.

\*A facility can not trigger PSD review solely based on GHG emissions. For GHG emissions to be subject to PSD review, the facility must first trigger PSD for a non-GHG regulated pollutant and GHG emission must be greater than the PSD significant emission rate.

Table B-11. Dominion's Chesterfield Energy Reliability Center - New Source Review Netting Analysis

Pollutant	CERC PTE (Proposed Increases) <sup>1</sup> (tpy)	Contemporaneous Decreases (tpy) <sup>2</sup>	Other Contemporaneous Increases (tpy) <sup>3</sup>	Project Net Emissions (tpy)	New Source Review Significant Emission Rate (tpy)	Major Modification (Y/N)
NO <sub>x</sub>	344.86	(453.55)	7.24	(101)	40	N
CO	818.79	(165.28)	21.35	675	100	Y
VOC	158.85	(19.29)	3.26	143	40	Y
PM	81.59	(277.75)	46.86	(149)	25	N
PM <sub>10</sub>	153.66	(221.96)	14.58	(54)	15	N
PM <sub>2.5</sub>	153.66	(43.99)	3.58	113	10	Y
$H_2SO_4$	18.66	(427.97)	0.04	(409)	7	N
GHG	2,213,100	(1,700,338)	6,136	518,898	75,000	Y

#### Notes:

Based on emissions data provided for March 2014 through April 2023 for all pollutants except GHG

GHG emissions based on data provided for Jan 2019 through April 2023

Contemporaneous Decreases valid for any consecutive 24-month period within the 5-year period immediately preceding commencement of construction.

Anticipated commencement of construction (May 2025)

1. PTE based on Chesterfield Energy Reliability Center PTE (with controls)

2. Contemporaneous Decreases represent past actual emissions for units 5 and 6 are based on 24-month annual average from July 2020 thru Jun 2022.

3. Other Contemporaneous Increases represent Potential Emissions from other projects during the 5-year period immediately preceding commencement of construction.

# Table B-12. Annual Operating Scenario 1 - Summary of Facility Pollutant Emission Rates Chesterfield Energy Reliability Center - GE 7F.05 Turbines

Normal Operation on Natural Gas Only including SUSD events

												Eı	mission Rates	5								
Source		Operations	N	0 <sub>x</sub>	C	0	VC	)C	P	М	PM	A10	PM	M <sub>2.5</sub>	SO	2	H <sub>2</sub> S	SO4	Le	ad	GHG	(CO2e)
		(hrs/yr)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)
CT1	Gas	3,240	23.30	37.75	11.30	18.31	3.20	5.18	11.9	12.12	19.70	23.17	19.70	23.17	8.20	5.51	5.60	3.73	1.20E-03	1.94E-03	286,380	463,936
CT2	Gas	3,240	23.30	37.75	11.30	18.31	3.20	5.18	11.9	12.12	19.70	23.17	19.70	23.17	8.20	5.51	5.60	3.73	1.20E-03	1.94E-03	286,380	463,936
CT3	Gas	3,240	23.30	37.75	11.30	18.31	3.20	5.18	11.9	12.12	19.70	23.17	19.70	23.17	8.20	5.51	5.60	3.73	1.20E-03	1.94E-03	286,380	463,936
CT4	Gas	3,240	23.30	37.75	11.30	18.31	3.20	5.18	11.9	12.12	19.70	23.17	19.70	23.17	8.20	5.51	5.60	3.73	1.20E-03	1.94E-03	286,380	463,936
																						ļļ
Subtotal - Normal Operations				150.98		73.22		20.74		48.47		92.66		92.66		22.03		14.90		7.77E-03		1,855,744
	Startups	(events/yr)	(lb/event)	(tpy)	(lb/event)	(tpy)	(lb/event)	111/	(lb/event)	(tpy)	(lb/event)	(tpy)	(lb/event)	(tpy)	(lb/event)	(tpy)	(lb/event)	(tpy)	(lb/event)	(tpy)	(lb/event)	(tpy)
CT1	Gas	500	52	13.08	366	91.43	65	16.20	1.8	0.45	4	0.90	4	0.90	3.50E+00	8.76E-01	2.37E+00	5.93E-01	5.06E-04	1.26E-04	120,784	30,196
CT2	Gas	500	52	13.08	366	91.43	65	16.20	1.8	0.45	4	0.90	4	0.90	3.50E+00	8.76E-01	2.37E+00	5.93E-01	5.06E-04	1.26E-04	120,784	30,196
CT3	Gas	500	52	13.08	366	91.43	65	16.20	1.8	0.45	4	0.90	4	0.90	3.50E+00	8.76E-01	2.37E+00	5.93E-01	5.06E-04	1.26E-04	120,784	30,196
CT4	Gas	500	52	13.08	366	91.43	65	16.20	1.8	0.45	4	0.90	4	0.90	3.50E+00	8.76E-01	2.37E+00	5.93E-01	5.06E-04	1.26E-04	120,784	30,196
																						<b>↓</b> /
	Shutdown																					ļ/
CT1	Gas	500	20	4.95	152	38.05	31	7.80	0.9	0.23	2	0.45	2	0.45	9.14E-01	2.28E-01	6.19E-01	1.55E-01	3.07E-06	7.68E-07	31,505	7,876
CT2	Gas	500	20	4.95	152	38.05	31	7.80	0.9	0.23	2	0.45	2	0.45	9.14E-01	2.28E-01	6.19E-01	1.55E-01	3.07E-06	7.68E-07	31,505	7,876
CT3	Gas	500	20	4.95	152	38.05	31	7.80	0.9	0.23	2	0.45	2	0.45	9.14E-01	2.28E-01	6.19E-01	1.55E-01	3.07E-06	7.68E-07	31,505	7,876
CT4	Gas	500	20	4.95	152	38.05	31	7.80	0.9	0.23	2	0.45	2	0.45	9.14E-01	2.28E-01	6.19E-01	1.55E-01	3.07E-06	7.68E-07	31,505	7,876
Subtotal - Startups/Shutdowns				72.10		517.90		96.00		2.70		5.40		5.40		4.42		2.99E+00		5.09E-04		152,289
r i																						1 1 1
Total - Combustion Turbine Emissions				223.08		591.12		116.74		51.17		98.06		98.06		26.45		17.90		8.28E-03		2,008,033
	1	1	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)
Fuel Gas Heater 1		8,760	0.21	0.91	0.70	3.05	0.09	0.41	0.04	0.15	0.13	0.58	0.13	0.58	2.21E-02	9.69E-02	4.89E-03	2.14E-02	9.22E-06	4.04E-05	2,202	9,644
Firewater pump		500	0.88	0.22	1.09	0.27	0.38	0.09	0.06	0.02	0.61	0.15	0.61	0.15	3.90E-01	9.74E-02	2.98E-02	7.46E-03	1.31E-05	3.27E-06	238	59
(6) Black Start Emergency Generators		500	34.57	51.85	27.01	40.51	14.82	22.22	1.54	2.31	1.80	2.70	1.80	2.70	5.21E-02	7.81E-02	3.99E-03	5.98E-03	3.04E-04	4.55E-04	33,117	8,279
Fuel Oil Tanks		8,760					0.37	1.61														
Fugitive Emissions							5.13E-03	2.25E-02	2.51E-02	1.10E-01	5.02E-03	2.20E-02	1.23E-03	5.39E-03							32	140
Circuit Breakers																					47	204
Subtotal - Auxiliary Sources				52.98		43.83		24.36		2.59		3.45		3.44		0.27		3.48E-02		4.99E-04		18,327
Facility Total				276.06		634.95		141.10		53.76		101.52		101.50		26.72		17.93		8.77E-03		2,026,360
PSD Major Source Threshold				250		250		250		250		250		250		250				250		100,000
Major Source?				Yes		Yes		No		No		No		No		No				No		Yes
PSD Significant Emission Rate				40		100		40		25		15		10		40		7		0.6		75,000
Subject to PSD?				Yes		Yes		Yes		Yes		Yes		Yes		No		No		No		Yes

Source: Dominion, 2023 ECT, 2023.

#### ECT NOTES:

NG: PM emissions based on filterable only. PM<sub>10</sub>/PM<sub>2.5</sub> emissions based on filterable and condensable.

► NG: PM<sub>10</sub>/PM<sub>2.5</sub>, SO<sub>2</sub>, H<sub>2</sub>SO<sub>4</sub> Normal Operations, hourly emission rate based on NG sulfur content of 1.0 gr /100 scf and annual based on NG sulfur content of 0.4 gr/100 scf.

► NG: SO<sub>2</sub> SUSD, lbm/event = (lbm of SO<sub>2</sub>/MMBtu of NG) x (MMBTU of fuel/ SUSD Event)

▶ NG: H<sub>2</sub>SO<sub>4</sub> SUSD, lbm/event = (lbm of H<sub>2</sub>SO<sub>4</sub>/MMBtu of NG) x (MMBTU of fuel/ SUSD Event of Fuel)

NG: Pb Normal Operations, limit of MMBtU/hr) x (cf of NG/1,020 Btu) x (0.005 lb of Pb/MMcf of NG) - AP42 Section 1.4, Table 1.4-2
 NG: Pb SUSD, lbm/event =( MMBTU of Fuel/SUSD event) x (cf of NG/1,020 Btu) x (0.005 lb of Pb/MMcf of NG)

#### Table B-13. Annual Operating Scenario 2 - Summary of Facility Pollutant Emission Rates

Chesterfield Energy Reliability Center - GE 7F.05 Turbines Normal Operation on Natural Gas with Hydrogen including Natural Gas only SUSD events

Emission Rates Source Operation NO<sub>x</sub> со VOC PM  $PM_{10}$ PM<sub>2.5</sub> SO<sub>2</sub> H<sub>2</sub>SO<sub>4</sub> Lead GHG (CO2e) (hrs/yr) (lb/hr) (lb/hr) (lb/hr) (lb/hr) (lb/hr) (lb/hr) (lb/hr) (lb/hr) (tpy) (tpy) (tpy) (tpy) (lb/hr) (tpy) (tpy) (tpy) (lb/hr) (tpy) (tpy) (tpy) 3,240 5.35 CT1 Gas w/H2 23.00 37.26 11.20 18.14 3.20 5.18 11.8 12.02 19.50 23.00 19 50 23.00 8.10 5.50 3.73 1.19E-03 1.92E-03 283,390 459,092 CT2 Gas w/H2 3,240 23.00 37.26 11.20 18.14 3.20 5.18 11.8 12.02 19.50 23.00 19.50 23.00 8.10 5.35 5.50 3.73 1.19E-03 1.92E-03 283,390 459,092 CT3 Gas w/H2 3.240 23.00 37.26 11.20 18.14 3.20 5.18 11.8 12.02 19.50 23.00 19.50 23.00 8.10 5.35 5.50 3.73 1.19E-03 1.92E-03 283.390 459.092 CT4 Gas w/H2 3.240 23.00 37.26 11.20 18.14 3.20 5.18 11.8 12.02 19.50 23.00 19.50 23.00 8.10 5.35 5.50 3.73 1.19E-03 1.92E-03 283.390 459.092 Subtotal - Normal Operations 149.04 72.58 20.74 48.08 92.02 92.02 21.38 14.90 7.69E-03 1.836.367 Startups (events/yr) (lb/event) (tpy) (lb/event) (tpy) (lb/event) (tpy) lb/event (tpy) (lb/event) (tpy) (lb/event) (tpy) (lb/event) (tpy) (lb/event) (tpy) (lb/event) (tpy) (lb/event) (tpy) 3.50E+00 CT1 Gas 500 52 13.08 366 91.43 65 16.20 1.8 0.45 4 0.90 4 0.90 8.76E-01 2.37E+00 5.93E-01 5.06E-04 1.26E-04 120.784 30.196 CT2 Gas 500 52 13.08 366 91.43 65 16.20 1.8 0.45 0.90 0.90 3.50E+00 8.76E-01 2.37E+00 5.93E-01 5.06E-04 1.26E-04 120,784 30,196 4 4 CT3 500 52 13.08 366 91.43 65 16.20 1.8 0.45 0.90 0.90 3.50E+00 8.76E-01 2.37E+00 5.93E-01 5.06E-04 1.26E-04 120,784 30.196 Gas 4 4 52 CT4 Gas 500 13.08 366 91.43 65 16.20 1.8 0.45 4 0.90 4 0.90 3.50E+00 8.76E-0 2.37E+00 5.93E-01 5.06E-04 1.26E-04 120.784 30,196 Shutdown CT1 Gas 500 20 4.95 152 38.05 31 7.80 0.9 0.23 0.45 2 0.45 2.13E-02 5.32E-03 1.44E-02 3.60E-03 3.07E-06 7.68E-07 31,505 7,876 500 20 4.95 152 38.05 31 7.80 0.9 0.45 2.13E-02 5.32E-03 7.68E-07 31,505 7,876 CT2 Gas 0.23 2 0.45 1.44E-02 3.60E-03 3.07E-06 CT3 Gas 500 20 4.95 152 38.05 31 7.80 0.9 0.23 2 0.45 2 0.45 2.13E-02 5.32E-03 1.44E-02 3.60E-03 3.07E-06 7.68E-07 31.505 7.876 CT4 Gas 500 20 4.95 152 38.05 31 7.80 0.9 0.23 0.45 2 0.45 2.13E-02 5.32E-0 1 44E-02 3.60E-03 3.07E-06 7.68E-07 31,505 7,876 Subtotal - Startups/Shutdowns 72.10 517.90 96.00 2.70 5.40 5.40 3.52 2.39E+00 5.09E-04 152,289 Total - Combustion Turbine Emissions 221 14 500.48 116.74 50.78 07 12 97 42 24.01 17 29 8 19E-03 1 988 656 (lb/hr) (lb/hr) (lb/hr) (lb/hr) (lb/hr) (tpy) (lh/hr) (tpy) (tpy) (lh/hr) (tpy) (lb/hr) (tpy) (tpy) (tpy) (lb/hr) (tpy) (lh/hr) (tpy) (tpy) Fuel Gas Heater 1 8,760 0.21 0.91 0.70 3.05 0.09 0.41 0.04 0.15 0.13 0.58 0.13 0.58 2.21E-02 9.69E-02 4.89E-03 2.14E-02 9.22E-06 4.04E-05 2,202 9,644 500 0.88 0.22 1.09 0.27 0.38 0.09 0.06 0.61 0.15 3.90E-01 9.74E-0 2.98E-02 7.46E-03 3.27E-06 59 Firewater pump 0.02 0.61 0.15 1.31E-05 238 500 34 57 51.85 5.21E-02 33 117 8.279 (6) Black Start Emergency Generators 27.01 40.51 14.82 22.22 1.54 2 31 1.80 2.70 1.80 2.70 7 81E-02 3 99E-03 5 98E-03 3.04E-04 4 55E-04 0.37 1.61 Fuel Oil Tanks 8,760 5.13E-03 2.51E-02 5.02E-03 1.23E-03 Fugitive Emissions 2.25E-02 1.10E-01 2.20E-02 5.39E-03 32 140 ircuit Breakers 47 204 52.98 43.83 Subtotal - Auxiliary Sources 24.36 2 59 3.45 3.44 0.27 3 48E-02 4 99E-04 18,327 Facility Total 274.12 634.30 141.10 53.38 100.87 100.85 25.18 17.33 8.69E-0 2,006,983 PSD Major Source Threshold 250 250 250 250 250 250 250 250 100.000 Major Source? Yes Yes No No No No No No Yes PSD Significant Emission Rate 40 100 40 25 15 10 40 0.6 75.000 Subject to PSD? Yes Yes Yes Yes Yes Yes No No No Yes

Source: Dominion, 2023 ECT, 2023.

#### ECT NOTES:

NG: PM emissions based on filterable only. PM<sub>10</sub>/PM<sub>2.5</sub> emissions based on filterable and condensable.

▶ NG: PM<sub>10</sub>/PM<sub>2.5</sub> SO<sub>2</sub>, H<sub>2</sub>SO<sub>4</sub> Normal Operations, hourly emission rate based on NG sulfur content of 1.0 gr /100 scf and annual based on NG sulfur content of 0.4 gr/100 scf.

NG: SO<sub>2</sub> SUSD, lbm/event = (lbm of SO<sub>2</sub>/MMBtu of NG) x (MMBTU of fuel/ SUSD Event)

▶ NG: H<sub>2</sub>SO<sub>4</sub> SUSD, lbm/event = (lbm of H<sub>2</sub>SO<sub>4</sub>/MMBtu of NG) x (MMBTU of fuel/ SUSD Event of Fuel)

► NG: Pb Normal Operations, Ibm/hr = (MMBtu/hr) x (cf of NG/1,020 Btu) x (0.005 Ib of Pb/MMcf of NG) - AP42 Section 1.4, Table 1.4-2

NG: Pb SUSD, lbm/event =( MMBTU of Fuel/SUSD event) x (cf of NG/1,020 Btu) x (0.005 lb of Pb/MMcf of NG)

#### Table B-14. Annual Operating Scenario 3 - Summary of Facility Pollutant Emission Rates

Chesterfield Energy Reliability Center - GE 7F.05 Turbines Normal Operation on Natural Gas and Fuel Oil including SUSD events

r	1		<b></b>									F	mission Rate									
Source		Operations	N	0	(	20	V	C	Р	M	PN	1.0	PM			SO <sub>2</sub>	HaS	0.	L	ad	GHG	(CO2e)
Source		(hrs/vr)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)
		(1113/91)	(10/111)	(493)	(10/111)	(49)	(10/111)	(4)	(10/111)	( <b>P</b> J)	(10/111)	(4)	(10,111)	(193)	(10/111)	(49)	(10/11)	( <b>P</b> )/	(10/111)	(4)	(10/111)	(49)
CT1	Gas	2,490	23.30	29.01	11.30	14.07	3.20	3.98	11.9	9.31	19.70	17.80	19.70	17.80	8.20	4.23	5.60E+00	2.86E+00	1.20E-03	1.49E-03	286,380	356,543
	Oil	750	47.90	17.96	11.70	4.39	6.70	2.51	24.0	9.00	45.00	16.88	45.00	16.88	4.50	1.69	3.00E+00	1.13E+00	3.43E-02	1.29E-02	401,195	150,448
CT2	Gas	2,490	23.30	29.01	11.30	14.07	3.20	3.98	11.9	9.31	19.70	17.80	19.70	17.80	8.20	4.23	5.60E+00	2.86E+00	1.20E-03	1.49E-03	286,380	356,543
	Oil	750	47.90	17.96	11.70	4.39	6.70	2.51	24.0	9.00	45.00	16.88	45.00	16.88	4.50	1.69	3.00E+00	1.13E+00	3.43E-02	1.29E-02	401,195	150,448
	~												10.50									
CT3	Gas Oil	2,490	23.30 47.90	29.01 17.96	11.30 11.70	14.07 4.39	3.20 6.70	3.98 2.51	11.9 24.0	9.31 9.00	19.70 45.00	17.80 16.88	19.70 45.00	17.80 16.88	8.20 4.50	4.23	5.60E+00 3.00E+00	2.86E+00 1.13E+00	1.20E-03 3.43E-02	1.49E-03 1.29E-02	286,380 401,195	356,543 150,448
	Oil	750	47.90	17.96	11.70	4.39	6.70	2.51	24.0	9.00	45.00	10.88	45.00	10.88	4.50	1.09	3.00E+00	1.13E+00	3.43E-02	1.29E-02	401,195	150,448
CT4	Gas	2.490	23.30	29.01	11.30	14.07	3.20	3.98	11.9	9.31	19.70	17.80	19.70	17.80	8.20	4.23	5.60E+00	2.86E+00	1.20E-03	1.49E-03	286.380	356,543
014	Oil	750	47.90	17.96	11.70	4.39	6.70	2.51	24.0	9.00	45.00	16.88	45.00	16.88	4.50	1.69	3.00E+00	1.13E+00	3.43E-02	1.29E-02	401.195	150,448
								-10.5														
Subtotal - Normal Operations				187.88		73.82		25.99		73.25		138.71		138.71		23.68		15.95		0.06		2,027,966
	Startups	(events/yr)	(lb/event)	(tpy)	(lb/event)	(tpy)	(lb/event)	(tpy)	(lb/event)	(tpy)	(lb/event)	(tpy)	(lb/event)	(tpy)	(lb/event)	(tpy)	(lb/event)	(tpy)	(lb/event)	(tpy)	(lb/event)	(tpy)
CT1	Gas	380	52	9.94	366	69.48	65	12.31	1.80	0.34	4	0.68	4	0.68	3.50E+00	6.65E-01	2.37E+00	4.51E-01	5.06E-04	9.61E-05	120,784	22,949
	Oil	120	143	8.56	1036	62.15	101	6.08	10.30	0.62	21	1.23	21	1.23	1.92E+00	1.15E-01	1.31E+00	7.88E-02	1.44E-02	8.66E-04	168,763	10,126
CT2	Gas	380	52	9.94	366	69.48	65	12.31	1.80	0.34	4	0.68	4	0.68	3.50E+00	6.65E-01	2.37E+00	4.51E-01	5.06E-04	9.61E-05	120,784	22,949
	Oil	120	143	8.56	1036	62.15	101	6.08	10.30	0.62	21	1.23	21	1.23	1.92E+00	1.15E-01	1.31E+00	7.88E-02	1.44E-02	8.66E-04	168,763	10,126
CT3	Gas	380	52	9.94	366	69.48	65	12.31	1.80	0.34	4	0.68	4	0.68	3.50E+00	6.65E-01	2.37E+00	4.51E-01	5.06E-04	9.61E-05	120,784	22,949
CT4	Oil Gas	120	143 52	8.56 9.94	1036	62.15 69.48	101	6.08 12.31	10.30 1.80	0.62	21	1.23	21	0.68	1.92E+00 3.50E+00	1.15E-01 6.65E-01	1.31E+00 2.37E+00	7.88E-02 4.51E-01	1.44E-02 5.06E-04	8.66E-04 9.61E-05	168,763 120,784	10,126 22,949
C14	Oil	120	143	9.94	366 1036	69.48	65 101	6.08	1.80	0.54	21	1.23	4 21	1.23	3.50E+00 1.92E+00	1.15E-01	2.37E+00 1.31E+00	4.51E-01 7.88E-02	5.06E-04 1.44E-02	9.61E-05 8.66E-04	120,784	10,126
	On	120	145	8.50	1030	02.15	101	0.08	10.50	0.02	21	1.23	21	1.23	1.92L+00	1.1515-01	1.5112+00	7.001=02	1.44L*02	8.00L=04	108,705	10,120
	Shutdown																					
CT1	Gas	380	20	3.76	152	28.92	31	5.93	0.90	0.17	2	0.34	2	0.34	9.14E-01	1.74E-01	6.19E-01	1.18E-01	1.32E-04	2.51E-05	31,505	5,986
	Oil	120	62	3.74	246	14.73	47	2.81	5.10	0.31	10	0.62	10	0.62	5.00E-01	3.00E-02	3.43E-01	2.06E-02	3.77E-03	2.26E-04	44,020	2,641
CT2	Gas	380	20	3.76	152	28.92	31	5.93	0.90	0.17	2	0.34	2	0.34	9.14E-01	1.74E-01	6.19E-01	1.18E-01	1.32E-04	2.51E-05	31,505	5,986
	Oil	120	62	3.74	246	14.73	47	2.81	5.10	0.31	10	0.62	10	0.62	5.00E-01	3.00E-02	3.43E-01	2.06E-02	3.77E-03	2.26E-04	44,020	2,641
CT3	Gas	380	20	3.76	152	28.92	31	5.93	0.90	0.17	2	0.34	2	0.34	9.14E-01	1.74E-01	6.19E-01	1.18E-01	1.32E-04	2.51E-05	31,505	5,986
	Oil	120	62	3.74	246	14.73	47	2.81	5.10	0.31	10	0.62	10	0.62	5.00E-01	3.00E-02	3.43E-01	2.06E-02	3.77E-03	2.26E-04	44,020	2,641
CT4	Gas Oil	380	20 62	3.76 3.74	152 246	28.92 14.73	31 47	5.93 2.81	0.90	0.17 0.31	2 10	0.34	2 10	0.34 0.62	9.14E-01 5.00E-01	1.74E-01 3.00E-02	6.19E-01	1.18E-01 2.06E-02	1.32E-04 3.77E-03	2.51E-05 2.26E-04	31,505	5,986
	Ull	120	02	3.74	240	14.75	47	2.81	5.10	0.51	10	0.62	10	0.62	5.00E-01	3.00E-02	3.43E-01	2.00E-02	3.77E-03	2.20E-04	44,020	2,641
Subtotal - Startups/Shutdowns				104.00		701.14		108.50		5.75		11.50		11.50		3.94		2.67		4.85E-03		166,807
Subtotal - Startups/Shutdowns				104.00		/01.14		108.50		5.75		11.50		11.50		3.94		2.07		4.051-05		100,807
Total - Combustion Turbine Emissions				291.88		774.96		134.49		79.00		150.21		150.21		27.62		18.63		6.23E-02		2,194,773
			(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)
Fuel Gas Heater 1		8,760	0.21	0.91	0.70	3.05	0.09	0.41	0.04	0.15	0.13	0.58	0.13	0.58	2.21E-02	9.69E-02	4.89E-03	2.14E-02	9.22E-06	4.04E-05	2,202	9,644
Firewater pump		500	0.88	0.22	1.09	0.27	0.38	0.09	0.06	0.02	0.61	0.15	0.61	0.15	3.90E-01	9.74E-02	2.98E-02	7.46E-03	1.31E-05	3.27E-06	238	59
(6) Black Start Emergency Generators		500	34.57	51.85	27.01	40.51	14.82	22.22	1.54	2.31	1.80	2.70	1.80	2.70	5.21E-02	7.81E-02	3.99E-03	5.98E-03	3.04E-04	4.55E-04	33,117	8,279
Fuel Oil Tanks		8,760					0.37	1.61														1.10
Fugitive Emissions							5.13E-03	2.25E-02	2.51E-02	1.10E-01	5.02E-03	2.20E-02	1.23E-03	5.39E-03							32	140
Circuit Breakers																					47	204
Subtotal - Auxiliary Sources	1			52.98		43.83		24.36		2.59	1	3.45		3.44		0.27		3.48E-02		4.99E-04		18,327
Subtoral - Auxiliary Sources				32.70		45.05		24.30		2.37		3.43		3.44		0.27		5.461-02		7.771-04		10,327
Facility Total				344.86		818.79		158.85		81.59	1	153.66		153.65		27.89		18.66		6.28E-02		2.213.100
PSD Major Source Threshold				250		250	İ	250		250	1	250		250	İ	250	1	10.00	İ	250		100.000
Major Source?				Yes		Yes		No		No	1	No		No		No	1			No		Yes
PSD Significant Emission Rate				40		100		40		25		15		10		40		7		0.6		75,000
Subject to PSD?				Yes		Yes		Yes		Yes		Yes		Yes		No		Yes		No		Yes

Source: Dominion, 2023 ECT, 2023.

#### ECT NOTES:

► NG: PM emissions based on filterable only. PM<sub>10</sub>/PM<sub>2.5</sub> emissions based on filterable and condensable.

NG: PM<sub>10</sub>/PM<sub>2.5</sub>, SO<sub>2</sub>, H<sub>2</sub>SO<sub>4</sub> Normal Operations, hourly emission rate based on NG sulfur content of 1.0 gr /100 scf and annual based on NG sulfur content of 0.4 gr/100 scf.

► NG: SO<sub>2</sub> SUSD, lbm/event = (lbm of SO<sub>2</sub>/MMBtu of NG) x (MMBTU of fuel/ SUSD Event)

► FO: SO<sub>2</sub> SUSD, lbm/event = (lbm of SO<sub>2</sub>/MMBtu of Oil) x (MMBTU of fuel/ SUSD Event)

► NG: H<sub>2</sub>SO<sub>4</sub> SUSD, lbm/event = (lbm of H<sub>2</sub>SO<sub>4</sub>/MMBtu of NG) x (MMBTU of fuel/ SUSD Event of Fuel)

FO: H<sub>2</sub>SO<sub>4</sub> SUSD, lbm/event = (lb of H<sub>2</sub>SO<sub>4</sub>/MMBtu) x (MMBTU of fuel/ SUSD Event of Fuel)
 NG: Pb Normal Operations, lbm/hr = (MMBtu/hr) x (cf of NG/1,020 Btu) x (0.005 lb of Pb/MMcf of NG) - AP42 Section 1.4, Table 1.4-2

► FO: Pb Normal Operations, Ibm/hr = (MMBtu/hr) x (0.000014 lb of Pb/MMBtu) - AP42 Section 3.1, Table 3.1-5

NG: Pb SUSD, lbm/event =(MMBTU of Fuel/SUSD event) x (cf of NG/1,020 Btu) x (0.005 lb of Pb/MMcf of NG)
 FO: Pb SUSD, lbm/event = (MMBTU of fuel / SUSD Event) x (0.00014 lb of Pb/MMBtu)

# Table B-15. Fuel Gas Heater Emissions

	РО	TENTIA	L EMISSI		ENTORY WORKSHEET			
			EMIS	FGH 1 SION SOUR				
		Ελ			RCES < 100 MMBtu/hr			
		14			DESCRIPTION			
Emission Source Description:			Natural Gas-Fired		ter 1			
Emission Control Method(s)/II	O No.(s):		Low-NOx burners					
Emission Point Description:					ed Capacity (HHV) <b>NEOUATIONS</b>			
			EMISSION	SIMANO	egennois.			
Emission (lb/hr) = Emission Factor	· / /		,					
Emission (ton/yr) = Emission (lb/hr	r) x Operating Period (hrs	/yr) x (1 ton/ 2,0	00 lb)					
		IN	PUT DATA AN	D EMISSION	NS CALCULATIONS			
Operating Hours:	8,760	hrs/yr						
Natural Gas Heat Content:	1,020	Btu/scf (HHV	)					
No. of Fuel Gas Heaters Maximum Heat Input:	1 18.80	MMBtu/hr (H	(HV)					
Maximum ricat input.	10.00	initiation (1						
		Potent	ial				Pote	ential
		Emission			Hazardous Air	Emission	Emissio	on Rates
Pollutant	(lb/MMBtu)	Per Stack	Two Stacks	Total	Pollutant (HAP)	Factor (lb/10 <sup>6</sup> scf)	(1h /h-r)	(1)
NO <sub>x</sub>	(Ib/MMBtu) 0.011	(lb/hr) 0.10	(lb/hr) 0.21	(tpy) 9.06E-01	Bezene	(10/10 scl) 5.8E-03	(lb/hr) 1.07E-04	(tpy) 4.68E-04
CO	0.011	0.10	0.21	3.05E+00	formaldehyde	1.2E-02	2.27E-04	9.93E-04
VOC	0.005	0.05	0.09	4.12E-01	Total PAH	4.0E-04	7.37E-06	3.23E-05
SO <sub>2</sub>	0.0012	0.01	2.21E-02	9.69E-02	napthalene	3.0E-04	5.53E-06	2.42E-05
PM, Filterable	0.002	0.02	0.04	1.53E-01	acetaldehyde	3.1E-03	5.71E-05	2.50E-04
PM <sub>10</sub> /PM <sub>2.5</sub> H <sub>2</sub> SO <sub>4</sub>	0.007	0.07	0.13 4.89E-03	5.76E-01 2.14E-02	acrolein propylene	2.7E-03 5.3E-01	4.98E-05 9.77E-03	2.18E-04 4.28E-02
Lead	4.90E-07	4.61E-06	9.22E-06	4.04E-05	toluene	2.7E-02	4.88E-04	4.23E-02 2.14E-03
Highest HAP	11702 07	HOLE CO	9.77E-03	4.28E-02	xylene	2.0E-02	3.63E-04	1.59E-03
Total HAPs			1.14E-02	4.99E-02	ethyl benzene	6.9E-03	1.27E-04	5.57E-04
					hexane	4.6E-03	8.48E-05	3.71E-04
					Arsenic Beryllium	2.0E-04 1.2E-05	3.69E-06 2.21E-07	1.61E-05 9.69E-07
					Cadmium	1.1E-03	2.03E-05	8.88E-05
					Chromium	1.4E-03	2.58E-05	1.13E-04
					Cobalt Manganese	8.4E-05 3.8E-04	1.55E-06 7.00E-06	6.78E-06 3.07E-05
					Marganese	2.6E-04	4.79E-06	2.10E-05
					Nickel	2.1E-03	3.87E-05	1.70E-04
					Selenium	2.4E-05	4.42E-07	1.94E-06
Da	rameter		SOUR	CES OF INP	UT DATA Data Source			
Operating Hours (annual)	lancter	Dominion, 202	3.		Data Source			
Natural Gas Heat Content (Btu/scf,		Dominion, 202	3.					
Maximum Heat Input (MMBtu/hr, Emission Rates (NOx, CO, VOC)	HHV)	Dominion, 2023		on ultra-low NO	x burners (9 ppmvd @ 3% O2) and CO rate of 50 p	00 00 00 00 00 00 00 00 00 00 00 00 00		
VOC & PM/PM10/PM2.5		AP-42, Table 1				rr		
Emission Rates (SO <sub>2</sub> , H <sub>2</sub> SO <sub>4</sub> )			ulfur content of 0.4	grains/100 scf				
Emission Rates (Lead) Emission Rates (HAPs)		AP-42, Table 1		rol District AP25	88 Combustion Emission Factors (May 17, 2001)			
Emission rates (HAPS)		venura Couffy		ioi District AD23	oo compusión Emissión Factors (May 17, 2001)			
			NOTES	AND OBSEI	PVATIONS			
Only detected HAP compounds list	ed.		10110	LAND ODDEI	x ************			
Assume PM <sub>10</sub> =PM <sub>2.5</sub>								

			EMISS	ION SOUR	CE TYPE			
		INTE	ERNAL COM	IBUSTION	ENGINES < 600 HP			
		F	ACILITY AN	D SOURCE	E DESCRIPTION			
Emission Source Descri	ption:		Firewater Pun	ıp				
Emission Control Metho	od(s)/ID No.(s)	:	None					
Emission Point Descript	ion:			-HP Diesel E				
					N EQUATIONS			
Emission (lb/hr) = Emission	n Factor (g/hp-hr	) x Engine power	rating (BHP) x	(1 lb / 453.6 g)				
Emission (ton/yr) = Emissio								
Emission (lb/hr) = Emission	n Factor (lb/MM	Btu) x Rated Cap	acity (MMBtu/h	r)				
		11/01/		DEMICCIO	NECLICULATION	a		
D. (	500	INPU		) EMI5510	NS CALCULATION		- 14	
Potential Hours: Testing Hours:	500		hrs/yr		Fuel Flow:	10.6	gal/hr	
No. of Engines:	100		hrs/yr		Diesel Sulfur Content:	0.0015	weight %	
Heat Input:	1.45		MMBtu/hr ()	HHV)	Diesel Heat Content:	137,000	Btu/gal (HHV	()
mout input.	1.15			<b>m</b> ()	Dieser neur Content.	157,000	Dia/gai (IIII )	)
	En	nission	Pote	ntial			Pote	ntial
	F	actor	Emissio	n Rates		Emission	Emissio	on Rates
Pollutant			Hourly	Annual	Pollutant	Factor	Hourly	Annual
	g/hp-hr	lb/hp-hr	(lb/hr)	(tpy)		(lb/MMBtu)	(lb/hr)	(tpy)
NO <sub>x</sub>	2.10		0.88	0.22	1,3-Butadiene	3.91E-05	5.68E-05	1.42E-05
СО	2.60		1.09	0.27	Acetaldehyde	7.67E-04	1.11E-03	2.78E-04
VOC	0.90		0.38	0.09	Acrolein	9.25E-05	1.34E-04	3.36E-05
$SO_2$		2.05E-03	3.90E-01	0.10	Benzene	9.33E-04	1.35E-03	3.39E-04
PM	0.15		0.06	0.02	Formaldehyde	1.18E-03	1.71E-03	4.28E-04
$PM_{10}$	1.00	2.20E-03	0.61	0.15	Lead	9.00E-06	1.31E-05	3.27E-06
PM <sub>2.5</sub>	1.00	2.20E-03	0.61	0.15	Naphthalene	8.48E-05	1.23E-04	3.08E-05
$H_2SO_4$		1.57E-04	2.98E-02	7.46E-03	PAH	1.68E-04	2.44E-04	6.10E-05
Highest HAP			1.71E-03	4.28E-04	Toluene	4.09E-04	5.94E-04	1.48E-04
Total HAPs			5.76E-03	1.44E-03	Xylenes	2.85E-04	4.14E-04	1.03E-04
			SOURC	ES OF INP	UT DATA			
Pai	ameter				Data So	ource		
NOX, CO, VOC		40 CFR 60, Sub	part IIII, Table 4	. NOx and VO	C is a combined rate of 3.0	g/hp-hr. Assume 70	% NOx and 30%	VOC.
Ϋ́M		40 CFR 60, Sub	part IIII Table 4	. Emission rate	based on filterable PM only	ý		
PM10/PM2.5		AP-42: Section	3.3 Table 3.3-1.	Emission rate	includes both filterable and	condensible PM and	PM10=PM2.5	
O <sub>2</sub>		AP-42: Section	3.3 Table 3.3-1					
I <sub>2</sub> SO <sub>4</sub>		Based on 5% co	onversion of SO <sub>2</sub>	to SO <sub>3</sub> and 100	0% conversion of SO3 to H2	SO <sub>4</sub>		
IAPS		AP-42: Section	3.3 Table 3.3-2					
ead			1.3 Table 1.3-10					
Diesel Heat Content		AP-42 Appendi						
			NOTES	AND OBSE	RVATIONS			

# Table B-16. Diesel Emergency Firewater Pump Emissions

CO         3.50         27.01         40.51         Acrolein         7.88E-06         2.66E-04         3.99E-02           VOC         1.92         14.82         22.22         Benzene         7.76E-04         2.62E-02         3.93E-02           SO2         5.21E-02         0.08         Formaldehyde         7.88E-06         3.04E-04         4.55E-02           PM         0.20         1.54         2.31         Lead         9.00E-06         3.04E-04         4.55E-02           PM <sub>10</sub> 0.23         1.80         2.70         Naphthalene         1.30E-04         4.38E-03         6.58E-03           PM <sub>2.5</sub> 0.23         1.80         2.70         PAH         2.12E-04         7.15E-03         1.07E-03           H <sub>2</sub> SO <sub>4</sub> 3.99E-03         5.98E-03         Toluene         2.81E-04         9.48E-03         1.42E-03           Highest HAP         2.62E-02         3.93E-02         Xylenes         1.93E-04         6.51E-03         9.76E-03           Total HAPs         5.78E-02         8.67E-02               VOC         40 CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards. NOx and VOC is a combined rate of 6.4 g/kw-4         Assume 70% NOx and 30% VOC. <th></th> <th></th> <th></th> <th>EMISSIO</th> <th>N SOURCE</th> <th>TYPE</th> <th></th> <th></th> <th></th>				EMISSIO	N SOURCE	TYPE			
Emission Source Description: Black Start Generators Emission Control Method(y)ID No.(s): None Emission Pactor (php) S Expire power rating (h) x (110 + 435 c.p.) Emission for the php of X Expire power rating (h) x (110 + 435 c.p.) Emission (hhr) = Emission Factor (th MMBitu) x Heat Input (MMBinhr) Emission (hhr) = Emission Factor (th MMBitu) x Heat Input (MMBinhr) Emission (hhr) = Emission Factor (th MMBitu) x Heat Input (MMBinhr) Emission (hhr) = Emission Factor (th MMBitu) x Heat Input (MMBinhr) Emission (hhr) = Emission Factor (th MMBitu) x Heat Input (MMBinhr) Emission (hhr) = Emission Factor (th MMBitu) x Heat Input (MMBinhr) Emission (hhr) = Emission Factor (th MMBitu) x Heat Input (MMBinhr) Deternital Hours: 500 hrs/yr Testing Hours: 100 hrs/yr No. of Engines: 6 Pollutant Eactor Emission Rates Pollutant Eactor Emission Rates Pollutant Eactor Emission Rates Pollutant Eactor Emission Rates Pollutant g/kw-hr Ib/hpp-hr (th/hr) (tpy) NO, 4 4.48 34.57 51.85 Accetaldehyde 2.52E.06 8.50E-04 1.27E.0 SOQ 152.1E.02 0.088 Formaldehyde 2.52E.06 3.309E-02 3.39E.0 PM 0.23 1.180 2.70 Naphthalen 1.33E.03 2.0008 Formaldehyde 1.33E.03 3.03E.04 4.35E.04 3.39E.0 PM4 0.20 1.54 2.31 Lead 9.00E.06 3.04E.04 3.04E.04 3.04E.04 3.04E.04 3.04E.04 3.04E.04 3.04E.03 3.04E.04 3.04E.04 3.04E.04 3.04E.04 3.04E.04 3.04E.04 3.04E.04 3.04E.04 3.04E.04 3.04E.04 3.04E.04 3.04E.04 3.04E.04 3.04E.04 3.04E.04 3.04E.03 3.09E.00 PM4 0.23 1.180 2.70 Naphthalen 1.33E.04 4.35E.03 1.07E.06 1.07E 0.05 1.07E.06 1.07E 0.05 1			INTERN	IAL COMBU	JSTION EN	GINES > 600 HP			
Emission Control Method(s)/ID No.(s): Note 3500 KW Emission Point Description: 4,694 - HP Diesel Engine 3500 KW EMISSION ESTIMATION EQUATIONS Emission (bhr) = Emission Factor (ghr)+hy x Regine power rating (hy) x (1 tor/ 2,000 b) Emission (bhr) = Emission Factor (ghr)+hy x Regine power rating (hy) x (1 tor/ 2,000 b) Emission (bhr) = Emission Factor (ghr)+hy x Regine power rating (hy) x (1 tor/ 2,000 b) Emission (bhr) = Emission Factor (ghr)+hy x Regine power rating (hy) x (1 tor/ 2,000 b) Emission (bhr) = Emission Factor (ghr)+hy x Regine power rating (hy) x (1 tor/ 2,000 b) Emission (bhr) = Emission Factor (ghr)+hy x Regine power rating (hy) x (1 tor/ 2,000 b) Emission (bhr) = Emission Factor (ghr)+hy x Regine power rating (hy) x (1 tor/ 2,000 b) Emission (bhr) = Emission Factor (ghr) = 1000 hrs/yr Foreing Hours: 6  Potential Hours: 6  Potential Factor Potential Pollutant [Pactor Emission Rates Pollutant [Pactor Emission Rates Pollutant [Pollutant Factor Regines Rates Pollutant [Pollutant ollutant [Polluta ] [Pollutant [Polluta ] [Polluta ] [Pollutant [Polluta ] [Polluta ] [Polluta ] [Polluta ] [Pollutant [Polluta ] [Polluta			FAC	LITY AND S	SOURCE D	ESCRIPTION			
Emission Point Description:         4.694 +HP Dissel Engine         3500 KW           EMISSION ESTIMATION EQUATIONS           Emission (bhr) = Emission Factor (lphp-hr) X Engine power rating (lph) (10 + 435.6 g)         Emission (lohy) = Emission Factor (lbh) X Annual Operating House, they yr (1 tow 2.000 lb)         Emission (lohy) = Emission Factor (lbh) X Annual Operating House, they yr (1 tow 2.000 lb)         End (lph) = Emission Factor (lbh) X Annual Operating House, they yr (1 tow 2.000 lb)         Evel Flow:         246.20         gal / hr           Polential Hours:         500         hrs/yr         [ Fuel Flow:         246.20         gal / hr           Testing Hoars:         100         hrs/yr         [ Fuel Flow:         246.20         gal / hr           Polential Hours:         500         hrs/yr         [ Fuel Flow:         246.20         gal / hr           No, of Engines:         6         100         hrs/yr         [ Fuel Flow:         246.20         gal / hr           Pollutant         [ Factor         Emission Rates         Pollutant         [ Hourly         [ Hourly         Annual           Pollutant         [ gkw-hr         [ bhp]-hr         ( lbh)r/hr         ( hr)r         [ Hourly         Acrolein         7.88E-06         2.66E-04         3.99E-01           VOC         1.92         1.4.82         2.2.1E-02	Emission Source Description	on:		Black Start Ge	enerators				
EMISSION ESTIMATION EQUATIONS           Emission Factor (ghp-hr) X fingline power rating (hp) x (1 th / 453.6.g)           Emission Factor (ghp-hr) X final Optical (hp) x (1 th / 453.6.g)           Emission Factor (b/MMBtu) x Hear Input (MMBtu/hr)           INPUT DATA AND EMISSIONS CALCULATIONS           Potential Hours:         500         hrs:yr         Fuel Flow:         246.20         gal /hr           TOPUT DATA AND EMISSIONS CALCULATIONS           Potential Hours:         500         hrs:yr           Fuel Flow:         246.20         gal /hr           Potential         Potential           Factor         Emission Rates           Pollutant         Polential         Pollutant	Emission Control Method(s	s)/ID No.(s):		None					
Emission Factor (ghp-hr) x Engine power rating (hp) x (1 lb / 433.6 g)           Emission Factor (lb/htty > Kanual Operating Hours (htty) x (1 tor 2,000 lb)           Emission (lb/hty) = Emission Factor (lb/MBu) x Hear Input (MMBu/hr)           Fuel Flow:         246.20         gal / hr           TOPOT DATA AND EMISSIONS CALCULATIONS           Potential Hours:         100         hrs/yr         Fuel Flow:         246.20         gal / hr           Testing Hours:         100         hrs/yr         Fuel Flow:         246.20         gal / hr           Testing Hours:         100         hrs/yr         Fuel Flow:         246.20         gal / hr           Testing Hours:         100         hrs/yr         Fuel Flow:         246.20         gal / hr           Top for the flow:         246.20         gal / hr           Fuel Flow:         246.20         gal / hr           Instant flow:         Potential         Emission Rates           Pollutant         Em	Emission Point Description	:		4,694	-HP Diesel B	Engine		3500	KW
Emission Factor (IbAtt) x Annual Operating Bours (Invyr) x (1 ton/ 2,000 lb)           INPUT DATA AND EMISSIONS CALCULATIONS           Potential Four:         246.20         gal / Ir           Emission Factor (IbAMMBu) x Heat Input (MMBu/hr)           Fuel Flow:         246.20         gal / Ir           Emission Factor (IbAMMBu) x Heat Input (MMBu/hr)           Dised Heat: Sulfur Conten         0.0015         weight %           Dised Heat: Content:         137,000         Btu/gal (HHV)           Dised Heat: Content:         137,000         Btu/gal (HHV)           Emission Rates         Potential Emission Rates           Potential Factor         Emission Rates         Potential Emission Rates           Potential gaw-hr         Bin/potential Factor         Emission Rates           Potential gaw-hr         Houry Manual (Ib/hr)         Colspan="2">Colspan="2"           Softer Colspan="2"         Colspa			EMI	SSION EST	IMATION .	EQUATIONS			
INPUT DATA AND EMISSIONS CALCULATIONS           INPUT DATA AND EMISSIONS CALCULATIONS           Potential Hours:         500         hrs/yr         Fuel Flow:         246.20         gal/ hr           Testing Hours:         100         hrs/yr         Diesel Sulfur Conten         0.0015         weight %           No. of Engines:         6         Diesel Sulfur Conten         0.0015         weight %           Pollutant         Emission         Potential Factor         Emission Rates         Potential (b/hr)         Emission Rates           Pollutant         gkw-hr         Ib/np-hr         (lb/hr)         Annual         Potential (b/hr)         Emission Rates           Pollutant         gkw-hr         Ib/np-hr         (lb/hr)         Annual         Potential (b/hr)         Emission Rates         Potential         Emission Rates         Source         2.66E-04         3.99E-03         2.66E-04         3.99E-03         2.66E-04	Emission (lb/hr) = Emission Fa	ctor (g/hp-hr) x	Engine power:	rating (hp) x (1 l	b / 453.6 g)				
INPUT DATA AND EMISSIONS CALCULATIONS         Potential Hours:       500       hrs/yr       Fuel Flow:       246.20       gal/hr         Tosting Hours:       100       hrs/yr       Diesel Sulfur Conten       0.0015       weight with weight with weight with weight with weight with weight with weight				5	x (1 ton/ 2,000	) lb)			
Potential Hours:       500       hrs/yr       Fuel Flow:       246.20       gal/ hr         Testing Hours:       100       hrs/yr       Diesel Sulfur Conten       0.0015       weight %         No. of Engines:       6       Diesel Sulfur Conten       0.0015       weight %         Heat Input (per engine):       33.73       MMBtu/hr (HHV)       Diesel Heat Content       137.000       Bu/gal (HHV)         Pollutant       Factor       Emission Rates       Pollutant       Emission Rates       Potential         Yok       Hourly       Annual       Potential       Emission Rates       Potential       Emission Rates         Yok       1b/hp-hr       Hourly       Annual       Potential       Emission Rates       Potential         Yok       4.48       34.57       51.85       Acctaldehyde       2.52E-05       8.50E-04       1.27E-02         VOC       1.92       14.82       2.22       Benzene       7.76E-04       2.66E-03       3.99E-03         SO2       5.21E-02       0.08       Formaldehyde       7.88E-06       2.66E-03       3.99E-03         PM10       0.23       1.80       2.70       PAH       2.12E-04       7.15E-03       1.07E-01         PM350	Emission (lb/hr) = Emission Fa	ctor (lb/MMBtu	) x Heat Input	(MMBtu/hr)					
Potential Hours:       500       hrs/yr       Fuel Flow:       246.20       gal/ hr         Testing Hours:       100       hrs/yr       Diesel Sulfur Conten       0.0015       weight %         No. of Engines:       6       Diesel Sulfur Conten       0.0015       weight %         Heat Input (per engine):       33.73       MMBtu/hr (HHV)       Diesel Sulfur Conten       137,000       Bu/gal (HHV)         Pollutant       Factor       Emission Rates       Pollutant       Emission Rates       Potential         Yok, A       4.4.8       34.57       51.85       Accetaldehyde       2.52E-05       8.50E-04       1.27E-0.         CO       3.50       27.01       40.51       Acrolein       7.76E-04       2.66E-04       3.99E-0.         VOC       1.92       14.82       2.22       Benzene       7.76E-04       2.66E-03       3.99E-0.         SO2       5.21E-02       0.08       Formaldehyde       7.88E-06       2.66E-03       3.99E-0.         PM10       0.23       1.80       2.70       PAH       2.12E-04       7.16E-04       4.38E-03       6.58E-0.         PM15       0.23       1.80       2.70       PAH       2.12E-04       7.15E-03       1.76E-04 </td <td></td> <td></td> <td>DIDLIT D</td> <td></td> <td>MAGGIONO</td> <td>CALOUR ATTONS</td> <td></td> <td></td> <td></td>			DIDLIT D		MAGGIONO	CALOUR ATTONS			
Testing Hours:         100         hrvyr         Diesel Sulfur Conten         0.0015         weight %           No. of Engines:         6         Diesel Sulfur Conten         0.0015         weight %           Heat Input (per engine):         33.73         MMBtw/n (HHV)         Diesel Heat Content:         137,000         Bur/gal (HHV)           Heat Input (per engine):         33.73         MMBtw/n (HHV)         Diesel Heat Content:         137,000         Bur/gal (HHV)           Pollutant         Factor         Emission Rates         Potential         Emission Rates         Potential           NO,         4.48         54.57         51.85         Acetaldehyde         2.52E-05         8.50E-04         1.27E-05           CO         3.50         27.01         40.51         Acrolein         7.88E-06         2.66E-04         3.99E-00           VOC         1.92         14.82         2.23         Berzene         7.76E-04         4.35E-03         65BE-03           PM         0.20         1.54         2.31         Lead         9.00E-06         3.04E-04         4.55E-04           PM10         0.23         1.80         2.70         PAH         2.12E-04         7.15E-03         1.07E-03           PM12,50,2	D		INPUT D		MISSIONS	1			
No. of Engines:         6         Diesel Sulfur Conten         0.0015         weight %           Heat Input (per engine):         33.73         MMBtu/hr (HHV)         Diesel Heat Content:         137,000         Btu/gal (HHV)           Heat Input (per engine):         33.73         MMBtu/hr (HHV)         Diesel Sulfur Content:         137,000         Btu/gal (HHV)           Pollutant         Emission         Potential         Emission Rates         Emission         Potential           Pollutant         (jb/hr)         (jpy)         Annual         (jpy)         Potential         Emission         Rates           CO         3.50         27.01         40.51         Acrolein         7.88E-06         2.66E-04         3.99E-00           VOC         1.92         14.82         2.22         Benzzne         7.76E-04         2.66E-03         3.99E-02           SO2         5.21E-02         0.08         Formaldehyde         7.38E-04         4.35E-03         1.07E-04           PM10         0.23         1.80         2.70         Naphthalene         1.30E-04         4.35E-03         1.07E-03           Highest HAP         2.62E-02         3.93E-02         Xylenes         1.93E-04         6.51E-03         9.76E-03           Highest						Fuel Flow:	246.20	gal/ hr	
Heat Input (per engine):33.73MMBtu/hr (HHV)Diesel Heat Content:137.000Btu/gal (HHV)PollutantEmission FactorEmission Emission RatesPotential Emission RatesEmission RatesPotential Emission RatesPotential Emission RatesPollutantg/kw-hrIb/hp-hr(Ib/hr)(ttpy)PollutantFactorPotential Emission RatesNO_44.4834.5751.85Acetaldehyde2.52E-058.50E-041.27E-07CO3.5027.0140.51Acrolein7.88E-062.66E-043.99E-04VOC1.9214.8222.22Berzene7.76E-042.62E-023.99E-07SO25.21E-020.08Formaldehyde7.89E-052.66E-033.99E-07PM0.201.542.31Lead9.00E-063.04E-044.55E-07PM100.231.802.70PAH2.12E-047.15E-031.07E-03PM350.231.802.70PAH2.12E-047.15E-031.07E-03Highest HAP2.62E-023.93E-02Xylenes1.93E-046.51E-039.76E-03Total HAPs40 CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards. CFR 1039 Tier 2 emission standards. (00077 Ib/MBlu *33.73 MMBtu/hr*1 In/3500 kw *453.5924 g/lb)40 CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards. (00077 Ib/MBlu *33.73 MMBtu/hr*1 In/3500 kw *453.5924 g/lb)M10-PM2.5O2Based on File Oil sulfur content of 15 pmcp2gased on File Oil sulfur c	U			nrs/yr		Discal Sulfur Conto	0.0015	woight 0/	
Emission Factor         Potential Emission Rates         Potential Emission Rates         Potential Emission Rates           NO <sub>A</sub> 4.48         34.57         51.85         Acctaldebyde         2.52E-05         8.50E-04         1.27E-01           CO         3.50         27.01         40.51         Acrolein         7.88E-06         2.66E-02         3.99E-00           VOC         1.92         14.82         22.22         Benzene         7.76E-04         2.62E-02         3.93E-01           SO2         5.21E-02         0.08         Formaldehyde         7.89E-05         2.66E-03         3.99E-03           PM         0.20         1.54         2.31         Lead         9.00E-06         3.04E-04         4.55E-02           PM <sub>10</sub> 0.23         1.80         2.70         Naphthalene         1.30E-04         4.38E-03         6.58E-03           H <sub>3</sub> SO <sub>4</sub> 3.99E-03         5.98E-03         Toluene         2.81E-04         9.48E-03         1.42E-03           H <sub>3</sub> SO <sub>4</sub> 3.99E-03         5.98E-03         Toluene         2.81E-04         9.48E-03         1.42E-03           H <sub>2</sub> So <sub>4</sub> 3.99E-02         3.93E-02         Xylenes         1.93E-04         6.51E-03         9.76E-03 <t< td=""><td></td><td>-</td><td></td><td>MA (Data /h. a. /I</td><td><b>HIR</b>D</td><td></td><td></td><td>U</td><td></td></t<>		-		MA (Data /h. a. /I	<b>HIR</b> D			U	
$\begin{array}{ c c c } \hline Particle & Particl$	Heat Input (per engine):	33.73		MMBtu/nr (F	HHV)	Diesel Heat Content	: 137,000	Btu/gal (HH	(V)
Pollutant         Ibhp-hr         Hourly (lb/hr)         Annual (tpy)         Pollutant         Factor (lb/MMBtu)         Per Unit (lb/hr)         Total (tpy)           NO <sub>8</sub> 4.48         34.57         51.85         Acetaldehyde         2.52E-05         8.50E-04         1.27E-03           CO         3.50         27.01         40.51         Acetaldehyde         2.52E-05         8.50E-04         1.27E-03           VOC         1.92         14.82         22.22         Benzene         7.76E-04         2.62E-02         3.93E-03           SO2          5.21E-02         0.08         Formaldehyde         7.89E-06         2.66E-03         3.99E-03           PM         0.20         1.54         2.31         Lead         9.00E-06         3.04E-04         4.55E-04           PM <sub>10</sub> 0.23         1.80         2.70         PAH         2.12E-04         7.15E-03         1.07E-03           Highest HAP         2.62E-02         3.93E-03         Toluene         2.81E-04         9.48E-03         1.42E-03           Highest HAP         2.62E-02         3.93E-02         Xylenes         1.93E-04         6.51E-03         9.76E-03           Total HAPs          5.78E-02         8.67E-02		Emi	ssion	Poter	ntial			Pote	ential
g/kw-hr         lb/hp-hr         (lb/hr)         (tpy)         (lb/MMBu)         (lb/hr)         (tpy)           NO <sub>A</sub> 4.48         34.57         51.85         Acetaldehyde         2.52E-05         8.50E-04         1.27E-03           CO         3.50         27.01         40.51         Acrolein         7.88E-06         2.66E-04         3.99E-00           VOC         1.92         14.82         22.22         Benzene         7.76E-04         2.62E-02         3.99E-05           SO2         5.21E-02         0.08         Formaldehyde         7.89E-05         2.66E-03         3.99E-05           PM         0.20         1.54         2.31         Lead         9.00E-06         3.04E-04         4.55E-00           PM <sub>10</sub> 0.23         1.80         2.70         Naphthalene         1.30E-04         4.38E-03         6.58E-03           PM <sub>25</sub> 0.23         1.80         2.70         PAH         2.12E-04         7.15E-03         1.07E-03           Highest HAP         2.62E-02         3.93E-02         Xylenes         1.93E-04         6.51E-03         9.76E-03           Total HAPs         40 CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards. NOx and VOC is a combined rate of 6.4 g/kw-1 <tr< td=""><td></td><td>Fa</td><td>ctor</td><td>Emissio</td><td>n Rates</td><td></td><td>Emission</td><td>Emissie</td><td>on Rates</td></tr<>		Fa	ctor	Emissio	n Rates		Emission	Emissie	on Rates
NO <sub>k</sub> 4.48         34.57         51.85         Acetaldehyde         2.52E-05         8.50E-04         1.27E-02           CO         3.50         27.01         40.51         Acrolein         7.88E-06         2.66E-04         3.99E-0           VOC         1.92         14.82         22.22         Benzene         7.76E-04         2.62E-03         3.99E-0           SO2         5.21E-02         0.08         Formaldehyde         7.88E-06         3.04E-04         4.55E-0           PM         0.20         1.54         2.31         Lead         9.00E-06         3.04E-04         4.55E-02           PM <sub>10</sub> 0.23         1.80         2.70         Naphthalene         1.30E-04         4.38E-03         6.58E-03           PM <sub>45</sub> 0.23         1.80         2.70         PAH         2.12E-04         7.15E-03         1.07E-03           H <sub>2</sub> SO <sub>4</sub> 3.99E-03         5.98E-03         Toluene         2.81E-04         9.48E-03         1.42E-03           H <sub>2</sub> SO <sub>4</sub> 5.78E-02         8.67E-02         Xylenes         1.93E-04         6.51E-03         9.76E-03           Total HAPs         5.78E-02         8.67E-02         Xylenes         1.93E-04         6.51E-03         9.	Pollutant			Hourly	Annual	Pollutant	Factor	Per Unit	Total
CO         3.50         27.01         40.51         Acrolein         7.88E-06         2.66E-04         3.99E-04           VOC         1.92         14.82         22.22         Benzene         7.76E-04         2.62E-02         3.93E-02           SQ         5.21E-02         0.08         Formaldehyde         7.89E-05         2.66E-03         3.99E-02           PM         0.20         1.54         2.31         Lead         9.00E-06         3.04E-04         4.55E-04           PM         0.23         1.80         2.70         Naphthalene         1.30E-04         4.35E-03         6.58E-02           PM <sub>2.5</sub> 0.23         1.80         2.70         PAH         2.12E-04         7.15E-03         1.07E-03           Highest HAP         2.62E-02         3.93E-02         Xylenes         1.93E-04         6.51E-03         9.76E-02           Total HAPs         5.78E-02         8.67E-02         Xylenes         1.93E-04         6.51E-03         9.76E-02           Wo, CO, VOC         Assume 70% NOx and 30% VOC.         Assume 70% NOx and 30% VOC.         Assume 70% NOx and 30% VOC.         M         40 CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards. Emission rate based on filterable PM only         AP-42: Section 3.4 Table 3.4-1 (condensible rate) plus the PM (fil		g/kw-hr	lb/hp-hr	(lb/hr)	(tpy)		(lb/MMBtu)	(lb/hr)	(tpy)
VOC         1.92         14.82         22.22         Benzene         7.76E-04         2.62E-02         3.93E-02           SO2         5.21E-02         0.08         Formaldehyde         7.89E-05         2.66E-03         3.99E-02           PM         0.20         1.54         2.31         Lead         9.00E-06         3.04E-04         4.55E-02           PM10         0.23         1.80         2.70         Naphthalene         1.30E-04         4.38E-03         6.58E-02           PM25         0.23         1.80         2.70         PAH         2.12E-04         7.15E-03         1.07E-02           Highest HAP         2.62E-02         3.93E-02         Xylenes         1.93E-04         6.51E-03         9.76E-02           Total HAPs         5.78E-02         8.67E-02         Xylenes         1.93E-04         6.51E-03         9.76E-02           M         40 CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards. Nox and VOC is a combined rate of 6.4 g/kw-1         Assume 70% NOx and 30% VOC.         M         40 CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards. Emission rate based on filterable PM only         AP-42: Section 3.4 Table 3.4-1 (condensible rate) plus the PM (filterable) rate from 40 CFR 60, Subpart IIII and 40           MI0/PM2.5         02         Based on Fuel oil sulfur content of 15 ppm	NO <sub>x</sub>	4.48		34.57	51.85	Acetaldehyde	2.52E-05	8.50E-04	1.27E-03
SO2         5.21E-02         0.08         Formaldehyde         7.89E-05         2.66E-03         3.99E-03           PM         0.20         1.54         2.31         Lead         9.00E-06         3.04E-04         4.55E-02           PM10         0.23         1.80         2.70         Naphthalene         1.30E-04         4.38E-03         6.58E-03           PM25         0.23         1.80         2.70         PAH         2.12E-04         7.15E-03         1.07E-07           H2S04         2.02E-02         3.99E-03         Toluene         2.81E-04         9.48E-03         1.42E-07           Highest HAP         2.02E-02         3.99E-02         Xylenes         1.93E-04         6.51E-03         9.76E-03           Total HAPs         5.78E-02         8.67E-02         Xylenes         1.93E-04         6.51E-03         9.76E-03           Ox, CO, VOC         Assume 70% NOx and 30% VOC.         Assume 70% NOx and 30% VOC.         Assume 70% NOx and 30% VOC.         Mol           M         40 CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards. Emission rate based on filterable PM only         AP-42: Section 3.4 Table 3.4 -1 (condensible rate) plus the PM (filterable) rate from 40 CFR 60, Subpart IIII and 40           CFR 1039 Tier 2 emission standards.         (0.00771 b/MMBtu #33.73 MMBtu/m* 1 hr/3500 k	CO	3.50		27.01	40.51	Acrolein	7.88E-06	2.66E-04	3.99E-04
PM         0.20         1.54         2.31         Lead         9.00E-06         3.04E-04         4.55E-04           PM <sub>10</sub> 0.23         1.80         2.70         Naphthalene         1.30E-04         4.38E-03         6.58E-03           PM <sub>25</sub> 0.23         1.80         2.70         PAH         2.12E-04         7.15E-03         1.07E-03           Highest HAP         2.62E-02         3.93E-03         Toluene         2.81E-04         9.48E-03         1.42E-03           Highest HAP         2.62E-02         3.93E-02         Xylenes         1.93E-04         6.51E-03         9.76E-03           Total HAPs         5.78E-02         8.67E-02         Xylenes         1.93E-04         6.51E-03         9.76E-03           Ox, CO, VOC         40 CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards. NOx and VOC is a combined rate of 6.4 g/kw-F           Assume 70% NOx and 30% VOC.         40 CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards. Emission rate based on filterable PM only           AP-42: Section 3.4 Table 3.4-1 (condensible rate) plus the PM (filterable) rate from 40 CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards.           (0.0077 lb/MBtu *33.73 MBtu/hr* 1 hr/3500 kw * 453.5924 g/lb)           M10/PM2.5           O2         Based on Fuel oil sulfur content of 15 ppm	VOC	1.92		14.82	22.22	Benzene	7.76E-04	2.62E-02	3.93E-02
$PM_{10}$ 0.23         1.80         2.70         Naphthalene         1.30E-04         4.38E-03         6.58E-03 $PM_{2.5}$ 0.23         1.80         2.70         PAH         2.12E-04         7.15E-03         1.07E-03 $H_2SO_4$ 3.99E-03         5.98E-03         Toluene         2.81E-04         9.48E-03         1.42E-03           Highest HAP         2.62E-02         3.93E-02         Xylenes         1.93E-04         6.51E-03         9.76E-03           Total HAPs         5.78E-02         8.67E-02         8.67E-02           9.76E-03           Ox, CO, VOC         40 CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards. NOx and VOC is a combined rate of 6.4 g/kw-4           Assume 70% NOx and 30% VOC.         40 CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards. Emission rate based on filterable PM only           AP-42: Section 3.4 Table 3.4-1 (condensible rate) plus the PM (filterable) rate from 40 CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards. Emission rate based on filterable PM only           M10/PM2.5         02         Based on Fuel oil sulfur content of 15 ppm         504           02         Based on S% conversion of SO <sub>2</sub> to SO <sub>2</sub> and 100% conversion of SO <sub>3</sub> to H <sub>2</sub> SO <sub>4</sub> 02         Based on S% conversion of SO <sub>2</sub> to SO <sub>2</sub> and 100% conversion of SO <sub>3</sub> to H <sub>2</sub> SO	$SO_2$			5.21E-02	0.08	Formaldehyde	7.89E-05	2.66E-03	3.99E-03
PM2.5         0.23         1.80         2.70         PAH         2.12E-04         7.15E-03         1.07E-03           H2SO4         3.99E-03         5.98E-03         Toluene         2.81E-04         9.48E-03         1.42E-03           Highest HAP         2.62E-02         3.93E-02         Xylenes         1.93E-04         6.51E-03         9.76E-03           Total HAPs         5.78E-02         8.67E-02           6.51E-03         9.76E-03           SOURCES OF INPUT DATA           Parameter         Data Source           40         CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards. NOx and VOC is a combined rate of 6.4 g/kw-ł           Assume 70% NOx and 30% VOC.         M         40 CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards. Emission rate based on filterable PM only           AP-42: Section 3.4 Table 3.4-1 (condensible rate) plus the PM (filterable) rate from 40 CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards.           (0.00771 lb/MMBtw *33.73 MMBtu/hr* 1 hr/3500 kw * 453.5924 g/lb)           M10/PM2.5         02         Based on 5% conversion of SO <sub>2</sub> to SO <sub>3</sub> and 100% conversion of SO <sub>3</sub> to H <sub>2</sub> SO <sub>4</sub> ead         AP-42: Section 1.3 Table 1.3-10         AP-42: Section 1.4 Tables 3.4-3 and 3.4-4           biesel Heat Content         AP-42 Appendix A         AP-42 Appendix A <td></td> <td></td> <td></td> <td>1.54</td> <td>2.31</td> <td>Lead</td> <td></td> <td>3.04E-04</td> <td></td>				1.54	2.31	Lead		3.04E-04	
H2SO4         3.99E-03         5.98E-03         Toluene         2.81E-04         9.48E-03         1.42E-03           Highest HAP         2.62E-02         3.93E-02         Xylenes         1.93E-04         6.51E-03         9.76E-03           Total HAPs         5.78E-02         8.67E-02         8.67E-02         1.93E-04         6.51E-03         9.76E-03           Main         General HAPs         Data Source         Data Source         Main	$PM_{10}$	0.23		1.80		_	1.30E-04		6.58E-03
Highest HAP       2.62E-02       3.93E-02       Xylenes       1.93E-04       6.51E-03       9.76E-02         Total HAPs       5.78E-02       8.67E-02       8.67E-02       100 <td< td=""><td></td><td>0.23</td><td></td><td></td><td></td><td>PAH</td><td></td><td>7.15E-03</td><td></td></td<>		0.23				PAH		7.15E-03	
Total HAPs       5.78E-02       8.67E-02         SOURCES OF INPUT DATA         Parameter       Data Source         40 CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards. NOx and VOC is a combined rate of 6.4 g/kw-f         Assume 70% NOx and 30% VOC.         M       40 CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards. Emission rate based on filterable PM only         AP-42: Section 3.4 Table 3.4-1 (condensible rate) plus the PM (filterable) rate from 40 CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards.         (0.0077 lb/MMBtu *33.73 MMBtu/hr* 1 hr/3500 kw * 453.5924 g/lb)         M10/PM2.5         O2       Based on Fuel oil sulfur content of 15 ppm         I2SQ4       Based on 5% conversion of SO2 to SO3 and 100% conversion of SO3 to H2SO4         ead       AP-42: Section 3.4 Table 3.4-3 and 3.4-4         IAPS       AP-42: Section 3.4 Tables 3.4-3 and 3.4-4									
SOURCES OF INPUT DATA         Parameter       Data Source         40 CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards. NOx and VOC is a combined rate of 6.4 g/kw-F         Assume 70% NOx and 30% VOC.         M       40 CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards. Emission rate based on filterable PM only         AP-42: Section 3.4 Table 3.4-1 (condensible rate) plus the PM (filterable) rate from 40 CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards. (0.0077 lb/MBtu *33.73 MMBtu/hr* 1 hr/3500 kw * 453.5924 g/lb)         M10/PM2.5       0.2         Based on Fuel oil sulfur content of 15 ppm         I2SO4       Based on 5% conversion of SO2 to SO3 and 100% conversion of SO3 to H <sub>2</sub> SO4         ead       AP-42: Section 1.3 Table 1.3-10         IAPS       AP-42: Section 3.4 Tables 3.4-3 and 3.4-4         biesel Heat Content       AP-42 Appendix A	-					Xylenes	1.93E-04	6.51E-03	9.76E-03
ParameterData Source40 CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards. NOx and VOC is a combined rate of 6.4 g/kw-f Assume 70% NOx and 30% VOC.M40 CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards. Emission rate based on filterable PM onlyAP-42: Section 3.4 Table 3.4-1 (condensible rate) plus the PM (filterable) rate from 40 CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards. (0.0077 lb/MMBtu *33.73 MMBtu/hr* 1 hr/3500 kw * 453.5924 g/lb)M10/PM2.5Based on Fuel oil sulfur content of 15 ppmQ2Based on Fuel oil sulfur content of 15 ppmI2SO4Based on 5% conversion of SO2 to SO3 and 100% conversion of SO3 to H2SO4eadAP-42: Section 1.3 Table 1.3-10IAPSAP-42: Section 3.4 Tables 3.4-3 and 3.4-4Diesel Heat ContentAP-42 Appendix A	Total HAPs			5.78E-02	8.67E-02				
M       40 CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards. Emission rate based on filterable PM only         AP-42: Section 3.4 Table 3.4-1 (condensible rate) plus the PM (filterable) rate from 40 CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards. (0.0077 lb/MMBtu *33.73 MMBtu/hr* 1 hr/3500 kw * 453.5924 g/lb)         M10/PM2.5       0.0077 lb/MMBtu *33.73 MMBtu/hr* 1 hr/3500 kw * 453.5924 g/lb)         M10/PM2.5       Based on Fuel oil sulfur content of 15 ppm         I2SO4       Based on 5% conversion of SO2 to SO3 and 100% conversion of SO3 to H2SO4         ead       AP-42: Section 1.3 Table 1.3-10         IAPS       AP-42: Section 3.4 Tables 3.4-3 and 3.4-4         Diesel Heat Content       AP-42 Appendix A		neter		ubpart IIII and 4	0 CFR 1039 Ti	Data So		combined rate	of 6.4 g/kw-ł
AP-42: Section 3.4 Table 3.4-1 (condensible rate) plus the PM (filterable) rate from 40 CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards.         M10/PM2.5         O2         Based on Fuel oil sulfur content of 15 ppm         I2SO4         ead         AP-42: Section 1.3 Table 1.3-10         IAPS         AP-42: Section 3.4 Tables 3.4-3 and 3.4-4         AP-42 Appendix A	IOx, CO, VOC		Assume 70%	NOx and 30% V	OC.				
AP-42: Section 3.4 Table 3.4-1 (condensible rate) plus the PM (filterable) rate from 40 CFR 60, Subpart IIII and 40 CFR 1039 Tier 2 emission standards.         M10/PM2.5         O2         Based on Fuel oil sulfur content of 15 ppm         I2SO4         ead         AP-42: Section 1.3 Table 1.3-10         IAPS         AP-42: Section 3.4 Tables 3.4-3 and 3.4-4         AP-42 Appendix A	M		40 CFR 60, S	ubpart IIII and 4	0 CFR 1039 Ti	er 2 emission standards.	Emission rate based	l on filterable P	M only
O2       Based on Fuel oil sulfur content of 15 ppm         I2SO4       Based on 5% conversion of SO2 to SO3 and 100% conversion of SO3 to H2SO4         ead       AP-42: Section 1.3 Table 1.3-10         IAPS       AP-42: Section 3.4 Tables 3.4-3 and 3.4-4         Diesel Heat Content       AP-42 Appendix A	M10/DM2 5		AP-42: Sectio CFR 1039 Tie	n 3.4 Table 3.4- er 2 emission sta	1 (condensible ndards.	rate) plus the PM (filtera	ble) rate from 40 C		
I2SO4     Based on 5% conversion of SO2 to SO3 and 100% conversion of SO3 to H2SO4       ead     AP-42: Section 1.3 Table 1.3-10       IAPS     AP-42: Section 3.4 Tables 3.4-3 and 3.4-4       Diesel Heat Content     AP-42 Appendix A			Based on Fuel	oil sulfur conto	nt of 15 ppm				
ead     AP-42: Section 1.3 Table 1.3-10       (APS     AP-42: Section 3.4 Tables 3.4-3 and 3.4-4       viesel Heat Content     AP-42 Appendix A						00% conversion of SO	to H_SO		
APS     AP-42: Section 3.4 Tables 3.4-3 and 3.4-4       viesel Heat Content     AP-42 Appendix A	2 1				- •	serve conversion of bO3			
viesel Heat Content AP-42 Appendix A									
					-3 and 3.4-4				
ΝΟΤΕς ΑΝΟ ΟΟςΕΛΥΑΤΙΟΝς	viesei Heat Collicili				DORGEDU	ATIONS			
				NULES ANI	U UBSERV	AHUNS			

# Table B-17. Black Start Diesel Emergency Generator Emissions

Table B-18. Dominion's Chesterfield Energy Reliability Center - Turbine EmissionsScenarios Summary for Virginia Minor NSR Applicability

					Pe	ollutants	5
Scenario		Nox	PM	<b>PM</b> <sub>10</sub>	SO <sub>2</sub>	$H_2SO_4$	Pb
		(tpy)	(tpy)	(tpy)	(tpy)	(tpy)	(tpy)
Scenario 4							
8,760 hrs - Natural Gas	Total Emissions	4,089	211	351	142.20	96.94	0.02
Only	Virginia Minor NSR Threshold	10	15	10	10	6	0.6
	Subject to VA Minor NSR?	Yes	Yes	Yes	Yes	Yes	No
Scenario 5							
8,760 hrs - Natural Gas w/	Total Emissions	4,531	209	345	140.14	95.21	0.02
H2 Only	Virginia Minor NSR Threshold	10	15	10	10	6	0.6
	Subject to VA Minor NSR?	Yes	Yes	Yes	Yes	Yes	No
Scenario 6							
8,760 hrs - Fuel Oil Only	Total Emissions	7,030	427	785	78.15	52.00	0.59
	Virginia Minor NSR Threshold	10	15	10	10	6	0.6
	Subject to VA Minor NSR?	Yes	Yes	Yes	Yes	Yes	No

Source: Dominion, 2023 ECT, 2023.

# Table B-19. Annual Operating Scenario 4 - Summary of Facility Pollutant Emission Rates

Chesterfield Energy Reliability Center - GE 7F.05 Turbines Virginia Minor NSR Operation Natural Gas including SUSD events

		1												
Source	Operations		N	ox	PM		$\mathbf{PM}_{10}$		$SO_2$		$H_2SO_4$		Lead	
		(hrs/yr)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)
CT1	Gas	8,385	233.30	978.11	11.90	49.89	19.70	82.59	8.20	34.38	5.60	23.48	1.20E-03	5.03E-03
CT2	Gas	8,385	233.30	978.11	11.90	49.89	19.70	82.59	8.20	34.38	5.60	23.48	1.20E-03	5.03E-03
CT3	Gas	8,385	233.30	978.11	11.90	49.89	19.70	82.59	8.20	34.38	5.60	23.48	1.20E-03	5.03E-03
CT4	Gas	8,385	233.30	978.11	11.90	49.89	19.70	82.59	8.20	34.38	5.60	23.48	1.20E-03	5.03E-03
Subtotal - Normal Operations				3,912.44		199.56		330.37		137.51		93.91		0.02
1	Startups	(events/yr)	(lb/event)	(tpy)	(lb/event)	(tpy)	(lb/event)	(tpy)	(lb/event)	(tpy)	(lb/event)	(tpy)	(lb/event)	(tpy)
CT1	Gas	500	98.40	24.60	7.38	1.84	13.93	3.48	3.50	0.88	2.37	0.59	5.06E-04	1.26E-04
CT2	Gas	500	98.40	24.60	7.38	1.84	13.93	3.48	3.50	0.88	2.37	0.59	5.06E-04	1.26E-04
CT3	Gas	500	98.40	24.60	7.38	1.84	13.93	3.48	3.50	0.88	2.37	0.59	5.06E-04	1.26E-04
CT4	Gas	500	98.40	24.60	7.38	1.84	13.93	3.48	3.50	0.88	2.37	0.59	5.06E-04	1.26E-04
	Shutdown													
CT1	Gas	500	25.67	6.42	1.92	0.48	3.63	0.91	0.91	0.23	0.62	0.15	1.32E-04	3.30E-05
CT2	Gas	500	25.67	6.42	1.92	0.48	3.63	0.91	0.91	0.23	0.62	0.15	1.32E-04	3.30E-05
CT3	Gas	500	25.67	6.42	1.92	0.48	3.63	0.91	0.91	0.23	0.62	0.15	1.32E-04	3.30E-05
CT4	Gas	500	25.67	6.42	1.92	0.48	3.63	0.91	0.91	0.23	0.62	0.15	1.32E-04	3.30E-05
Subtotal - Startups/Shutdowns				124.06		9.30		17.56		4.42		2.99E+00		6.37E-04
Total - Combustion Turbine Emissions				4,036.51		208.87		347.93		141.93		96.90		2.07E-02
			(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)
Fuel Gas Heater 1		8,760	2.07E-01	9.06E-01	3.50E-02	1.53E-01	1.32E-01	5.76E-01	2.21E-02	9.69E-02	4.89E-03	2.14E-02	9.22E-06	4.04E-05
Firewater pump		500	8.80E-01	2.20E-01	6.28E-02	1.57E-02	6.07E-01	1.52E-01	3.90E-01	9.74E-02	2.98E-02	7.46E-03	1.31E-05	3.27E-06
(6) Black Start Emergency Generators		500	35	5.19E+01	1.54E+00	2.31E+00	1.80E+00	2.70E+00	5.21E-02	7.81E-02	3.99E-03	5.98E-03	3.04E-04	4.55E-04
Fuel Oil Tanks		8,760	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fugitives		8,760	N/A	N/A	2.51E-02	0.11	5.02E-03	0.02	N/A	N/A	N/A	N/A	N/A	N/A
Subtotal - Auxiliary Sources				52.98		2.59		3.45		0.27		3.48E-02		4.99E-04
Facility Total				4,089.48		211.46		351.38		142.20		9.69E+01		2.12E-02
Virginia Minor NSR Threshold				4,089.48		15		10		142.20		9.09E+01		0.6
Subject to VA NSR?	+	<u> </u>		Yes		Yes		Yes		Yes		Yes		No

Source: Dominion, 2023 ECT, 2023.

#### ECT NOTES:

- ► NG: SO<sub>2</sub> SUSD, lbm/event = (lbm of SO<sub>2</sub>/MMBtu of NG) x (MMBTU of fuel/SUSD event)
- NG: Pb Normal Operations, lbm/hr = (MMBtu/hr) x (cf of NG/1,020 Btu) x (0.005 lb of Pb/MMcf of NG) AP42 Section 1.4, Table 1.4-2
   NG: Pb SUSD, lbm/event =(MMBtu of Fuel/SUSD event) x (cf of NG/1,020 Btu) x (0.005 lb of Pb/MMcf of NG)

#### Table B-20. Annual Operating Scenario 5 - Summary of Facility Pollutant Emission Rates

Chesterfield Energy Reliability Center - GE 7F.05 Turbines

Virginia Minor NSR Operation Natural Gas with Hydrogen including Natural Gas SUSD events

Source		Operations	Nox		PM		$PM_{10}$		SO <sub>2</sub>		H <sub>2</sub> SO <sub>4</sub>		Lead			
		(hrs/yr)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)		
CT1	Gas w/H <sub>2</sub>	8,385	258.80	1085.02	11.80	49.47	19.50	81.75	8.10	33.96	5.50	23.06	1.19E-03	4.97E-03		
CT2	Gas w/H <sub>2</sub>	8,385	258.80	1085.02	11.80	49.47	19.50	81.75	8.10	33.96	5.50	23.06	1.19E-03	4.97E-03		
CT3	Gas w/H2	8,385	258.80	1085.02	11.80	49.47	19.50	81.75	8.10	33.96	5.50	23.06	1.19E-03	4.97E-03		
CT4	Gas w/H <sub>2</sub>	8,385	258.80	1085.02	11.80	49.47	19.50	81.75	8.10	33.96	5.50	23.06	1.19E-03	4.97E-03		
Subtotal - Normal Operations				4,340.08		197.89		327.02		135.84		92.24		0.02		
-	Startups	(events/yr)							(lb/event)	(tpy)			(lb/event)	(tpy)		
CT1	Gas	500	109.12	27.28	6.52	1.63	11.89	2.97	3.43	0.86	2.33	0.58	5.06E-04	1.26E-04		
CT2	Gas	500	109.12	27.28	6.52	1.63	11.89	2.97	3.43	0.86	2.33	0.58	5.06E-04	1.26E-04		
CT3	Gas	500	109.12	27.28	6.52	1.63	11.89	2.97	3.43	0.86	2.33	0.58	5.06E-04	1.26E-04		
CT4	Gas	500	109.12	27.28	6.52	1.63	11.89	2.97	3.43	0.86	2.33	0.58	5.06E-04	1.26E-04		
	GL (1															
CITE 1	Shutdown	500	20.46	5.10	1.70	0.42	2.10	0.70	0.60	0.15	0.61	0.15	1.225.04	2 205 05		
CT1 CT2	Gas	500	28.46 28.46	7.12	1.70	0.43	3.10	0.78	0.60	0.15	0.61	0.15	1.32E-04	3.30E-05		
CT3	Gas	500 500	28.46	7.12	1.70	0.43	3.10	0.78	0.60	0.15	0.61	0.15	1.32E-04 1.32E-04	3.30E-05 3.30E-05		
CT4	Gas	500	28.46	7.12	1.70	0.43	3.10	0.78	0.60	0.15	0.61	0.15	1.32E-04	3.30E-05		
014	Gas	300	28.40	7.12	1.70	0.45	5.10	0.78	0.00	0.15	0.01	0.15	1.32E-04	3.30E-03		
Subtotal - Startups/Shutdowns				137.58		8.23		14.99		4.03		2.94E+00		6.37E-04		
Total - Combustion Turbine Emissions				4,477.65		206.11		342.01		139.87		9.52E+01		2.05E-02		
									(lb/hr)	(tpy)			(lb/hr)	(tpy)		
Fuel Gas Heater 1		8,760	2.07E-01	9.06E-01	3.50E-02	1.53E-01	1.32E-01	5.76E-01	2.21E-02	9.69E-02	4.89E-03	2.14E-02	9.22E-06	4.04E-05		
Firewater pump		500	8.80E-01	2.20E-01	6.28E-02	1.57E-02	6.07E-01	1.52E-01	3.90E-01	9.74E-02	2.98E-02	7.46E-03	1.31E-05	3.27E-06		
(6) Black Start Emergency Generators		500	35	5.19E+01	1.54E+00	2.31E+00	1.80E+00	2.70E+00	5.21E-02	7.81E-02	3.99E-03	5.98E-03	3.04E-04	4.55E-04		
Fuel Oil Tanks		8,760	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Fugitives		8,760	N/A	N/A	2.51E-02	0.11	5.02E-03	0.02	N/A	N/A	N/A	N/A	N/A	N/A		
Subtotal - Auxiliary Sources				52.98		2.59		3.45		0.27		3.48E-02		4.99E-04		
Facility Total				4,530.63		208.71		345.46		140.14		9.52E+01		2.10E-02		
Virginia Minor NSR Threshold				10		15		10		10		6		0.6		
Subject to VA NSR?				Yes		Yes		Yes		Yes		Yes		No		

Source: Dominion, 2023 ECT, 2023.

ECT NOTES:

► NG: SO<sub>2</sub> SUSD, lbm/event = (lbm of SO<sub>2</sub>/MMBtu of NG) x (MMBTU of fuel/SUSD event)

► NG: Pb Normal Operations, lbm/hr = (MMBtu/hr) x (cf of NG/1,020 Btu) x (0.005 lb of Pb/MMcf of NG) - AP42 Section 1.4, Table 1.4-2

NG: Pb SUSD, lbm/event =(MMBtu of Fuel/SUSD event) x (cf of NG/1,020 Btu) x (0.005 lb of Pb/MMcf of NG)

### Table B-21. Annual Operating Scenario 6 - Summary of Facility Pollutant Emission Rates

Chesterfield Energy Reliability Center - GE 7F.05 Turbines Virginia Minor NSR Operation Fuel Oil including SUSD events

Source		Operations	Operations N		P	М	PM <sub>10</sub>		SO <sub>2</sub>		$H_2SO_4$		Lead	
		(hrs/yr)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)
CT1	FO	8,385	403.30	1690.84	24.00	100.62	45.00	188.66	4.50	18.87	3.00	12.58	3.43E-02	1.44E-01
CT2	FO	8,385	403.30	1690.84	24.00	100.62	45.00	188.66	4.50	18.87	3.00	12.58	3.43E-02	1.44E-01
CT3	FO	8,385	403.30	1690.84	24.00	100.62	45.00	188.66	4.50	18.87	3.00	12.58	3.43E-02	1.44E-01
CT4	FO	8,385	403.30	1690.84	24.00	100.62	45.00	188.66	4.50	18.87	3.00	12.58	3.43E-02	1.44E-01
Subtotal - Normal Operations				6,763.34		402.48		754.65		75.47		50.31		0.58
•	Startups	(events/yr)	(lb/event)	(tpy)	(lb/event)	(tpy)	(lb/event)	(tpy)	(lb/event)	(tpy)	(lb/event)	(tpy)	(lb/event)	(tpy)
CT1	FO	500	169.65	42.41	17.01	4.25	21.19	5.30	1.92	0.48	1.31	0.33	1.44E-02	3.61E-03
CT2	FO	500	169.65	42.41	17.01	4.25	21.19	5.30	1.92	0.48	1.31	0.33	1.44E-02	3.61E-03
CT3	FO	500	169.65	42.41	17.01	4.25	21.19	5.30	1.92	0.48	1.31	0.33	1.44E-02	3.61E-03
CT4	FO	500	169.65	42.41	17.01	4.25	21.19	5.30	1.92	0.48	1.31	0.33	1.44E-02	3.61E-03
	Shutdown													
CT1	FO	500	44.25	11.06	4.44	1.11	5.53	1.38	0.50	0.12	0.34	0.09	3.77E-03	9.42E-04
CT2	FO	500	44.25	11.06	4.44	1.11	5.53	1.38	0.50	0.12	0.34	0.09	3.77E-03	9.42E-04
CT3	FO	500	44.25	11.06	4.44	1.11	5.53	1.38	0.50	0.12	0.34	0.09	3.77E-03	9.42E-04
CT4	FO	500	44.25	11.06	4.44	1.11	5.53	1.38	0.50	0.12	0.34	0.09	3.77E-03	9.42E-04
Subtotal - Startups/Shutdowns				213.90		21.44		26.71		2.42		1.66E+00		1.82E-02
Total - Combustion Turbine Emissions				6,977.24		423.92		781.36		77.88		5.20E+01		5.94E-01
									(lb/hr)	(tpy)			(lb/hr)	(tpy)
Fuel Gas Heater 1		8,760	2.07E-01	9.06E-01	3.50E-02	1.53E-01	1.32E-01	5.76E-01	2.21E-02	9.69E-02	4.89E-03	2.14E-02	9.22E-06	4.04E-05
Firewater pump		500	8.80E-01	2.20E-01	6.28E-02	1.57E-02	6.07E-01	1.52E-01	3.90E-01	9.74E-02	2.98E-02	7.46E-03	1.31E-05	3.27E-06
(6) Black Start Emergency Generators		500	35	5.19E+01	1.54E+00	2.31E+00	1.80E+00	2.70E+00	5.21E-02	7.81E-02	3.99E-03	5.98E-03	3.04E-04	4.55E-04
Fuel Oil Tanks		8,760	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fugitives		8,760	N/A	N/A	2.51E-02	0.11	5.02E-03	0.02	N/A	N/A	N/A	N/A	N/A	N/A
Subtotal - Auxiliary Sources				52.98		2.59		3.45		0.27		3.48E-02		4.99E-04
Facility Total				7,030.22		426.52		784.82		78.15		5.20E+01		5.94E-01
Virginia Minor NSR Threshold				10		15		10		10		6	1	0.6
Subject to VA NSR?				Yes		Yes		Yes		Yes		Yes		No

Source: Dominion, 2023 ECT, 2023.

#### ECT NOTES:

- ► NG: SO<sub>2</sub> SUSD, lbm/event = (lbm of SO<sub>2</sub>/MMBtu of NG) x (MMBTU of fuel/SUSD event)
- ► Fuel Oil: SO<sub>2</sub> SUSD, lbm/event = (lbm of SO<sub>2</sub>/MMBtu of Oil) x (MMBtu of Fuel /SUSD event)
- ► NG: Pb Normal Operations, Ibm/hr = (MMBtu/hr) x (cf of NG/1,020 Btu) x (0.005 Ib of Pb/MMcf of NG) AP42 Section 1.4, Table 1.4-2
- ► Fuel Oil: Pb Normal Operations, lbm/hr = (MMBtu/hr) x (0.000014 lb of Pb/MMBtu) AP42 Section 3.1, Table 3.1-5
- NG: Pb SUSD, lbm/event =(MMBtu of Fuel/SUSD event) x (cf of NG/1,020 Btu) x (0.005 lb of Pb/MMcf of NG)
   Fuel Oil: Pb SUSD, lbm/event = (MMBtu of Fuel/SUSD event) x (0.000014 lb of Pb/MMBtu)

## Table B-22. VOC Emissions from Fuel Oil Storage Tanks

	Capacity	Annual Throughput	Annual Emiss	sions
Storage Tank	gal	gal/yr	lb/yr	Tons/yr
Fuel Oil Storage Tank	12,000,000	60,000,000	3,203	1.60
Black Start Generator No. 1 Tank	3,500	125,400	2.88	1.4E-03
Black Start Generator No. 2 Tank	3,500	125,400	2.88	1.4E-03
Black Start Generator No. 3 Tank	3,500	125,400	2.88	1.4E-03
Black Start Generator No. 4 Tank	3,500	125,400	2.88	1.4E-03
Black Start Generator No. 5 Tank	3,500	125,400	2.88	1.4E-03
Black Start Generator No. 6 Tank	3,500	125,400	2.88	1.4E-03
Firewater Pump Engine Tank	500	5,500	0.18	9.0E-05
			Total	1.61

Calculated using Breeze TankESP Pro Version 5.2.0

## Table B-23. VOC and HAP Emission from Fugitive Natural Gas Piping Components and Maintenance Activities

		Emissions	Total Na	itural gas		Emis	sions	
	Number	Factor per	Leakag	Leakage Rate		$DC^2$	НА	Ps <sup>3</sup>
	of	Component						
Component	Components	(scf/hr) £	(scf/yr)	(lb/yr) <sup>1</sup>	lb/yr	tpy	lb/yr	tpy
Valve	640	0.027	151,373	6,360	24.80	0.012	0.00	0.00
Connector	334	0.003	8,778	369	1.44	0.001	0.00	0.00
Relief valve	40	0.04	14,016	589	2.30	0.001	0.00	0.00
Maintenance <sup>4</sup>			100,000	4,202	16.39	0.008	0.00	0.00
		Total	274,166	11,520	44.93	0.022	0.00	0.00

 $\pounds\,$  Based on 40 CFR 98, Table W-1a for Eastern United States.

1. Density of natural gas used 23.8 lb/scf.

2. Based on non-methane, non-ethane VOC content of natural gas of 0.39% (by weight) ref: Saybolt Petroleum Services Analytical Report, Sept 17, 2018.

3. No HAP emissions identified in natural gas analytical report.

4. Conservative estimate of annual natual gas released from maintenance and inspection activities associated with the fuel gas system.

Sources: Saybolt Petroleum Services, 2018.

ECT, 2023.

### Table B-24. Uncontrolled Paved Road Particulate Matter Emissions

Chesterfield Energy Reliability Center

### Paved Road Surface

<u>E = k ( sL)^0.91\*(W)^1.02</u> AP-42, 13.2.1.3, equation 1 (1/11)

		Particle size multiplier (k)				
where:		AP-42, Table 13	.2-1.1			
	0.91 and 1.02 are exponents					
E =	emission factor (lb/VMT)	Particle Size	<u>(k)</u>			
k =	particle size multiplier	PM-2.5	0.00054			
sL =	surface silt loading (g/m2)	PM-10	0.0022			
W =	average vehicle weight (tons)	PM-15	0.0027			
		PM-30	0.0110			
Road type	Silt Loading (g/m2)					

PM2.5

paved (low ADT) 0.6 \_

## Paved Road - Loaded Tank Truck<sup>1</sup> <u>Total PM</u> PM-10

k =	0.011	0.0022	0.00054
sL =	0.6	0.6	0.6
W =	40.00	40.00	40.00
E (Ib/VMT) =	0.298	0.060	0.0146

Estimated Annual Deliveries <sup>2</sup>	Delivery Round Trip Distance <sup>3</sup> (Miles)	VMT (Miles)
2600	0 284	738 4

Fugitive PM Emission Totals									
Total PM PM-10 PM-2.5									
lb/yr	219.74	43.95	10.79						
tons/yr	1.10E-01	2.20E-02	5.39E-03						

 2600
 0.284
 738.4

 <sup>1</sup> All truck traffic conservatively assumed to be loaded weight

<sup>2</sup> Delivery amounts based estimated fuel oil, ammonia, demin water, and support operations.

<sup>3</sup> Distance estimated at 1,500 ft round trip for all truck traffic

Date of last update: 7/26/2023

# Netting Analysis Support Information



## Contemporaneous Projects New Source Review Netting Analysis

Total Contemporaneous Increases	46.86	14.58	3.58	7.24	21.35	3.26	0.04	1.48E-04	6,136	0.04
	0.0070	0.0102	0.0102	0.1001	2.0000	0.1020	0.0210	1.102 00	0010	0.0210
Project total Emission (tons)	0.0070	0.0182	0.0182	3.4997	2.9398	0.1925	0.0210	1.75E-05	3819	0.0210
New Gas Tech Pipeline Heater - April 2022	PM	PM10	PM2.5	NOX	CO	VOC	SO2	Lead	CO2e	H2SO4
	1.10	2.10	2.07	0.7 1	10.11	0.01	0.0LL	1.002 01	2011	0.022
Project total Emission (tons)	4.46	2.48	2.07	3.74	18.41	3.07	0.022	1.30E-04	2317	0.022
Beneficial Use Processing And Material Handling Equipment - November 2021	PM	PM10	PM2.5	NOX	CO	VOC	SO2	Lead	CO2e	H2SO4
Project total Emission (tons)	42.39	12.08	1.49							
Coal Combustion Residual Pond Closure Project - February 2021	PM	PM10	PM2.5	NOX	CO	VOC	SO2	Lead	CO2e	H2SO4

		NOX		
Date	Unit 5	Unit 6	Total	Rolling 24- month annual
				average
Jan-19	0.0	33.9	33.9	9
Feb-19	0.0	3.3	3.3	
Mar-19	0.0	0.0	0.0	
Apr-19	0.0	0.0	0.0	
May-19	0.0	0.0	0.0	
Jun-19	30.5	39.5	70.0	
Jul-19	0.0	50.5	50.5	
Aug-19	19.0	51.0	70.0	
Sep-19	6.1	21.3	27.4	
Oct-19	0.0	0.0	0.0	
Nov-19	0.0	0.0	0.0	
Dec-19	0.0	0.0	0.0	
Jan-20	6.1	29.6	35.7	
Feb-20	0.0	0.0	0.0	
Mar-20	0.0	0.0	0.0	
Apr-20	0.0	0.0	0.0	
May-20	0.0	0.0	0.0	
Jun-20	21.1	9.7	30.8	
Jul-20	36.7	98.6	135.3	
Aug-20	37.4	39.3	76.7	
Sep-20	8.0	14.3	22.3	
Oct-20	0.0	1.1	1.1	
Nov-20	0.0	52.5	52.5	
Dec-20	35.6	52.3	87.9	348.70
Jan-21	0.0	0.0	0.0	331.75
Feb-21	24.4	28.9	53.3	356.75
Mar-21	0.0	19.2	19.2	366.35
Apr-21	5.2	0.0	5.2	368.95
May-21	11.8	0.0	11.8	374.85
Jun-21	17.7	8.3	26.0	352.85
Jul-21	24.3	33.6	57.9	356.55
Aug-21	45.4	24.9	70.3	356.70
Sep-21	30.4	30.9	61.3	373.65
Oct-21	2.8	0.0	2.8	375.05
Nov-21	2.3	0.0		376.20
Dec-21	10.2	14.5	24.7	388.55
Jan-22	30.2	45.0	75.2	408.30
Feb-22	13.5	15.1	28.6	422.60
Mar-22	7.2	0.0	7.2	426.20
Apr-22	0.0	6.9	6.9	429.65
May-22	4.1	21.4	25.5	442.40
Jun-22	<u>16.7</u>	<u>36.4</u>	<u>53.1</u>	453.55
Jul-22	9.4	28.4	37.8	404.80
Aug-22	12.4	44.3	56.7	394.80
Sep-22	5.0	14.5	19.5	393.40
Oct-22	0.0	0.0	0.0	392.85
Nov-22	14.9	24.3	39.2	386.20
Dec-22	14.7	30.9	45.6	365.05
Jan-23 Eab 22	1.5	0.0	1.5	365.80
Feb-23	20.6	12.0	32.6	355.45
Mar-23	4.1	42.0	46.1	368.90
Apr-23	3.1	51.1	54.2	393.40

			СО			
Date	Unit 5 - Diesel	Unit 5 - Coal	Unit 6 - Diesel	Unit 6 - Coal	Unit 5 & 6-	Rolling 24-
					Total	month annual
						average
Jan-		6.287125	0.3999925	9.26055	16.0	
Feb-		0.67245	0.058795	1.306775	2.1	
Mar-		2.17225	0.026635	0	2.3	
Apr-		0	0	0	0.0	
May- Jun-		0 13.035275	0 0.621165	0 13.8727	0.0 27.7	
Jul-		13.035275	0.43154	17.2692	17.7	
Aug-		5.09035	0.6086825	14.268575	20.4	
Sep-		3.16465	0.071695	5.669225	9.0	
Oct-		0.10409	0.07 1000	0.000220	0.0	
Nov-		0	0	0	0.0	
Dec-		0	0	0.2102	0.2	
Jan-2		0.88065	0.6031175	9.546525	11.2	
Feb-2		0	0	0	0.0	
Mar-2		0	0	0	0.0	
Apr-2		0	0	0	0.0	
May-2		0	0	0	0.0	
Jun-2		7.998975	0.187375	1.901525	10.8	
Jul-2	0.19253	17.38005	0.061605	35.81675	53.5	
Aug-2	0.28271	18.04235	0.75529	13.891975	33.0	
Sep-2	0.1472175	3.1319	0.050125	5.178775	8.5	
Oct-2		0.033525	0.3788525	0.052575	0.5	
Nov-2		0	0.86028	17.585975	18.4	
Dec-2		16.82975	1.4555825	18.39975	36.9	134.09
Jan-2		0	0	0	0.0	126.07
Feb-2		9.772325	0.5108175	11.102375	21.6	135.81
Mar-2		0	0.2013075	7.931775	8.1	138.72
Apr-2		1.200825	0	0	1.4	139.43
May-2		3.44135	0	0	3.7	141.30
Jun-2		5.141925	0.29156	2.208425	7.9	131.41
Jul-2		8.0593 11.27145	0.50184 0.5043175	11.778 7.300075	20.4	132.78
Aug-2 Sep-2		7.166875	0.6478725	9.3608	<u>19.3</u> 17.5	132.24 136.49
Oct-2		0.865	0.0478723	9.3008	0.9	136.92
Nov-2		0.7263		0	0.8	137.35
Dec-2				4.648775	8.9	141.68
Jan-2		9.214		16.9623	27.7	149.88
Feb-2		4.803		3.737325	9.4	154.56
Mar-2		2.413	0	0	2.8	155.98
Apr-2		0		0.952625	1.5	156.71
May-2		0.444925		3.914925	5.0	159.19
Jun-:		7.343375	0.398335	15.0656	23.0	165.28
Jul-:	0.4171875	4.75035	0.7723675	11.561675	17.5	147.31
Aug-2				14.07895	20.9	141.26
Sep-2		1.53325	0.4881825	4.9165	7.1	140.56
Oct-2		0		0	0.0	140.33
Nov-2		12.87225		0.90175	14.3	138.28
Dec-2		6.777	0.4251075	9.076	16.5	128.07
Jan-2		0.29375	0	0	0.4	128.27
Feb-2		9.7529		3.13975	13.4	124.20
Mar-2		1.342075		13.2904	14.7	127.50
Apr-2	0.419535	0.7711	0.5037925	13.6817	15.4	134.48

			VOC			
Date	Unit 5 -	Unit 5 - Coal	Unit 6 -	Unit 6 - Coal	Total - Unit 5	Rolling 12-
	Distillate		Distillate		& 6	month annual
						average
Jan-19	0.0037712	0.754455	0.0159997	1.111266	1.9	
Feb-19		0.080694	0.0023518	0.156813	0.2	
Mar-19		0.26067	0.0010654	0	0.3	
Apr-19	0	0	0	0	0.0	
May-19		0	0	0	0.0	
Jun-19		1.564233	0.0248466	1.664724	3.3	
Jul-19		0	0.0172616	2.072304	2.1	
Aug-19		0.610842 0.379758	0.0243473 0.0028678	1.712229 0.680307	2.4	
Sep-19 Oct-19					1.1 0.0	
Nov-19		0	0	0	0.0	
Dec-19		0	0	0.025224	0.0	
Jan-20	0.0087215	0.105678	0.0241247	1.145583	1.3	
Feb-20	0.0087215	0.105078	0.0241247	1.145565	0.0	
Mar-20	0	0	0	0	0.0	
Apr-20	0	0	0	0	0.0	
May-20	0	0	0	0	0.0	
Jun-20	0.0282449	0.959877	0.007495	0.228183	1.2	
Jul-20		2.085606	0.0024642	4.29801	6.4	
Aug-20		2.165082	0.03021012	1.667037	3.9	
Sep-20	0.0058887	0.375828	0.002005	0.621453	1.0	
Oct-20	0	0.004023	0.0151541	0.006309	0.0	
Nov-20	0	0	0.0344112	2.110317	2.1	
Dec-20	0.0090456	2.01957	0.0582233	2.20797	4.3	15.72
Jan-21	0	0	0	0	0.0	14.78
Feb-21	0.0072163	1.172679	0.0204327	1.332285	2.5	15.92
Mar-21	0	0	0.0080523	0.951813	1.0	16.27
Apr-21	0.0091277	0.144099	0	0	0.2	16.35
May-21	0.011611	0.412962	0	0	0.4	16.56
Jun-21	0.0113396	0.617031	0.0116624	0.265011	0.9	15.38
Jul-21	0.0043281	0.967116	0.0200736	1.41336	2.4	15.54
Aug-21	0.0084612	1.352574	0.0201727	0.876009	2.3	15.49
Sep-21	0.0113288	0.860025	0.0259149	1.123296	2.0	15.96
Oct-21	0	0.1038	0	0	0.1	16.02
Nov-21	0.0047618	0.087156	0	0	0.1	16.06
Dec-21	0.0076437	0.459786	0.0083961	0.557853	1.0	16.57
Jan-22	0.0197708	1.10568	0.0392227	2.035476	3.2	17.52
Feb-22	0.0013578	0.57636	0.0311522	0.448479	1.1	18.05
Mar-22	0.0173788	0.28956	0	0	0.3	18.21
Apr-22	0	0	0.0203096	0.114315	0.1	18.27
May-22		0.053391	0.0176219	0.469791	0.5	18.55
Jun-22		0.881205	0.0159334	1.807872	2.7	19.29
Jul-22		0.570042	0.0308947	1.387401	2.0	17.10
Aug-22	0.0221253	0.634833	0.0381746	1.689474	2.4	16.35
Sep-22	0.0071606	0.18399	0.0195273	0.58998	0.8	16.25
Oct-22	0	0	0	0	0.0	16.24
Nov-22		1.54467	0.0118322	0.10821	1.7	16.00
Dec-22	0.0086201	0.81324	0.0170043	1.08912	1.9	14.82
Jan-23		0.03525	0	0	0.0	14.84
Feb-23	0.0077195	1.170348	0.0136471	0.37677	1.6	14.36
Mar-23		0.161049	0.0006283	1.594848	1.8	14.76
Apr-23	0.0167814	0.092532	0.0201517	1.641804	1.8	15.57

			PM			
Date	Unit 5 - Distillate	Unit 5 - Coal	Unit 6 - Distillate	Unit 6 - Coal	Total - Unit 5 & 6	Rolling 24- month annual
	Distillate		Distillate		80	average
Jun-19	0.04959128	12.9011805	0.210396055	16.6319478	29.8	average
Jul-19	0.02428016	1.3798674	0.03092617	2.3469679	3.8	
Aug-19	0.06471641	4.457457	0.01401001	0	4.5	
Sep-19	0	0	0	0	0.0	
Oct-19	0	0	0	0	0.0	
Nov-19	0.09066136	26.7483843	0.32673279	24.9153692	52.1	
Dec-19	0	0	0.22699004	31.0154832	31.2	
Jan-20	0.21033688	10.4453982	0.320166995	25.6263607	36.6	
Feb-20	0.02637627	6.4938618	0.03771157	10.1819281	16.7	
Mar-20	0	0	0	0	0.0	
Apr-20	0	0	0	0	0.0	
May-20	0	0	0	0.3775192	0.4	
Jun-20	0.114687725	1.8070938	0.317239805	17.1455589	19.4	
Jul-20	0	0	0	0	0.0	
Aug-20	0	0	0	0	0.0	
Sep-20	0	0	0	0	0.0	
Oct-20	0	0	0	0	0.0	
Nov-20	0.371420435	16.4138967	0.09855925	3.4151389	20.3	
Dec-20	0.10127078	35.6638626	0.03240423	64.326883	100.1	
Jan-21	0.14870546	37.0229022	0.39728254	24.9499871	62.5	
Feb-21	0.077436405	6.4266588	0.02636575	9.3010799	15.8	
Mar-21	0	0.0687933	0.199276415	0.0944247	0.4	
Apr-21	0	0	0.45250728	31.5844111	32.0	0.47.00
May-21	0.11894964	34.534647	0.765636395	33.045951	68.5	247.09
Jun-21	0	0	0	0	0.0	232.19
Jul-21	0.094894345	20.0528109	0.268690005	19.9398655	40.4	250.48
Aug-21	0	0	0.105887745	14.2454679	14.4	255.39
Sep-21 Oct-21	0.120029255	2.4640929	0	0	2.6 7.2	256.68 260.29
	0.15268465 0.14911574	7.0616502 10.5512301	0.15336056	3.9663313	14.8	
Nov-21 Dec-21	0.056914515	16.5376836	0.26396784	21.153288	38.0	241.66 245.04
Jan-22	0.11126478	23.1290154	0.265271005	13.1109347	36.6	245.04
Feb-22	0.14897372	14.7064275	0.340780935	16.8119968	30.0	245.05
Mar-22	0.14897372	1.77498	0.340780933	0	1.8	253.57
Apr-22		1.4903676	0	0	1.6	254.35
May-22	0.100514655	7.8623406	0.110408715		16.4	262.37
Jun-22	0.25998602	18.907128	0.515778505	30.4642908	50.1	<b>277.75</b>
Jul-22	0.01785507	9.855756	0.40965143	6.7122357	17.0	286.25
Aug-22	0.22853122	4.951476	0	0	5.2	288.84
Sep-22	0	0	0.26707124	1.7109145	2.0	289.83
Oct-22	0.0819245	0.9129861	0.231727985	7.0312053	8.3	293.96
Nov-22	0.08733704	15.0686055	0.20952421	27.0578176	42.4	305.02
Dec-22	0.219440625	9.7477182	0.406265305	20.7647683	31.1	270.52
Jan-23	0.290947695	10.8556443	0.50199599	25.2857942	36.9	257.73
Feb-23	0.09416189	3.146229	0.256783995	8.830034	12.3	255.98
Mar-23	0	0	0	0	0.0	255.80
Apr-23	0.14528646	26.413857	0.15559343	1.619543	28.3	253.95

		F	PM10			
Date	Unit 5 -	Unit 5 - Coal	Unit 6 -	Unit 6 - Coal	Total - Unit 5	Rolling 24-
	Distillate		Distillate		& 6	month annual
						average
Jan-19		9.0786085	0.18399655	12.3720948	21.7	
Feb-19		0.9710178	0.0270457	1.7458514	2.8	
Mar-19		3.136729	0.0122521	0	3.2	
Apr-19		0	0	0	0.0	
May-19		0	0	0	0.0	
Jun-19		18.8229371	0.2857359	18.5339272	37.7	
Jul-19		0	0.1985084	23.0716512	23.3	
Aug-19	0.1839448 0.0230667	7.3504654 4.5697546	0.27999395 0.0329797	19.0628162 7.5740846	26.9	
Sep-19 Oct-19					12.2	
Nov-19		0	0	0	0.0	
Dec-19		0	0	0.2808272	0.0	
Jan-20		1.2716586	0.27743405	12.7541574	14.4	
Feb-20		1.2710580	0.27743403	12.7541574	0.0	
Mar-20		0	0	0	0.0	
Apr-20		0	0	0	0.0	
May-20		0	0	0	0.0	
Jun-20		11.5505199	0.0861925	2.5404374	14.5	
Jul-20		25.0967922	0.0283383	47.851178	73.1	
Aug-20		26.0531534	0.3474334	18.5596786	45.1	
Sep-20		4.5224636	0.0230575	6.9188434	11.5	
Oct-20		0.0484101	0.17427215	0.0702402	0.3	
Nov-20		0.0+0+01	0.3957288	23.4948626	23.9	
Dec-20		24.302159	0.66956795	24.582066	49.7	180.22
Jan-21	0	0	0	0	0.0	169.38
Feb-21	0.08298745	14.1112373	0.23497605	14.832773	29.3	182.63
Mar-21	0	0	0.09260145	10.5968514	10.7	186.37
Apr-21	0.10496855	1.7339913	0	0	1.8	187.29
May-21	0.1335265	4.9693094	0	0	5.1	189.84
Jun-21	0.1304054	7.4249397	0.1341176	2.9504558	10.6	176.30
Jul-21		11.6376292	0.2308464	15.735408	27.7	178.49
Aug-21	0.0973038	16.2759738	0.23198605	9.7529002	26.4	178.23
Sep-21	0.1302812	10.3489675	0.29802135	12.5060288	23.3	183.77
Oct-21		1.24906	0	0	1.2	184.40
Nov-21		1.0487772	0	0	1.1	184.95
Dec-21	0.08790255	5.5327582	0.09655515	6.2107634	11.9	190.77
Jan-22		13.305016	0.45106105	22.6616328	36.6	201.89
Feb-22		6.935532	0.3582503	4.9930662	12.3	208.04
Mar-22		3.484372	0	0	3.7	209.89
Apr-22		0	0.2335604	1.272707	1.5	210.64
May-22		0.6424717	0.20265185	5.2303398	6.1	213.71
Jun-22		10.6038335	0.1832341	20.1276416	31.0	221.96
Jul-22		6.8595054	0.35528905	15.4463978	22.9	196.85
Aug-22		7.6391571	0.4390079	18.8094772	27.1	187.88
Sep-22		2.214013	0.22456395	6.568444	9.1	186.66
Oct-22		0	0	0	0.0	186.51
Nov-22		18.587529	0.1360703	1.204738	20.1	184.59
Dec-22		9.785988	0.19554945	12.125536	22.2	170.87
Jan-23		0.424175	0	0	0.5	171.10
Feb-23		14.0831876	0.15694165	4.194706	18.5	165.73
Mar-23		1.9379563	0.00722545	17.7559744	19.7	170.26
Apr-23	0.1929861	1.1134684	0.23174455	18.2787512	19.8	179.25

		F	PM2.5			
Date	Unit 5 -	Unit 5 - Coal	Unit 6 -	Unit 6 - Coal	Total - Unit 5	Rolling 12-
	Distillate		Distillate		& 6	month annual
						average
Jan-19		1.94900875	0.123997675	2.1484476	4.3	
Feb-19		0.2084595	0.01822645	0.3031718	0.5	
Mar-19		0.6733975	0.00825685	0	0.7	
Apr-19 May-19		0 0	0	0	0.0	
Jun-19		4.04093525	0.19256115	3.2184664	0.0 7.5	
Jul-19		4.04093525	0.1337774	4.0064544	4.1	
Aug-19		1.5780085	0.188691575	3.3103094	5.2	
Sep-19		0.9810415	0.02222545	1.3152602	2.3	
Oct-19		0.0010410	0.02222049	0	0.0	
Nov-19		0	0	0	0.0	
Dec-19		0	0	0.0487664	0.0	
Jan-20		0.2730015	0.186966425	2.2147938	2.7	
Feb-20		0.2700010	0.100000120	0	0.0	L
Mar-20		0	0	0	0.0	
Apr-20		0	0	0	0.0	
May-20		0	0	0	0.0	
Jun-20		2.47968225	0.05808625	0.4411538	3.2	
Jul-20		5.3878155	0.01909755	8.309486	13.8	
Aug-20		5.5931285	0.2341399	3.2229382	9.1	
Sep-20	0.045637425	0.970889	0.01553875	1.2014758	2.2	
Oct-20	0	0.01039275	0.117444275	0.0121974	0.1	
Nov-20	0	0	0.2666868	4.0799462	4.3	
Dec-20	0.0701034	5.2172225	0.451230575	4.268742	10.0	35.16
Jan-21	0	0	0	0	0.0	33.04
Feb-21	0.055926325	3.02942075	0.158353425	2.575751	5.8	35.68
Mar-21	0	0	0.062405325	1.8401718	1.9	36.27
Apr-21	0.070739675	0.37225575	0	0	0.4	36.49
May-21	0.08998525	1.0668185	0	0	1.2	37.07
Jun-21	0.0878819	1.59399675	0.0903836	0.5123546	2.3	34.46
Jul-21	0.033542775	2.498383	0.1555704	2.732496	5.4	35.10
Aug-21		3.4941495	0.156338425	1.6936174	5.4	35.20
Sep-21	0.0877982	2.22173125	0.200840475	2.1717056	4.7	36.37
Oct-21 Nov-21	0 02600205	0.26815	0	0	0.3	36.51 36.64
		0.225153		0 1.0785158	0.3	
Dec-21		1.1877805 2.85634	0.065069775 0.303975925	3.9352536	2.4 7.2	37.81 40.06
Jan-22 Feb-22		1.48893	0.24142955	0.8670594	2.6	40.06
Mar-22		0.74803	0.24142933	0.8070394	0.9	41.81
Apr-22		0.74003	0.1573994	0.221009	0.9	42.00
May-22		0.13792675	0.136569725	0.9082626	1.2	42.61
Jun-22		2.27644625	0.12348385	3.4952192	5.9	43.99
Jul-22		1.4726085	0.239433925	2.6823086	4.5	39.36
Aug-22		1.63998525	0.29585315	3.2663164	5.4	37.48
Sep-22		0.4753075	0.151336575	1.140628	1.8	37.27
Oct-22		0	0	0	0.0	37.20
Nov-22		3.9903975	0.09169955	0.209206	4.4	37.22
Dec-22		2.10087	0.131783325	2.105632	4.4	34.42
Jan-23		0.0910625	0	0	0.1	34.48
Feb-23	0.059826125	3.023399	0.105765025	0.728422	3.9	33.53
Mar-23	0.03132395	0.41604325	0.004869325	3.0833728	3.5	34.34
Apr-23	0.13005585	0.239041	0.156175675	3.1741544	3.7	35.97

		H2SO4		
Date	Unit 5	Unit 6	Total	Rolling 24-
				month
				annual
				average
Jan-19	16.97543549	25.00432498	41.97976047	
Feb-19	1.815711936	3.52841597	5.344127906	
Mar-19	5.865333374	5.59335E-05	5.865389307	
Apr-19	0	0	0	
May-19	0	0	0	
Jun-19	35.19560446	37.45759445	72.6531989	
Jul-19	0	46.62774623	46.62774623	
Aug-19	13.74478475	38.52643073	52.27121548	
Sep-19	8.544660305	15.30705806	23.85171836	
Oct-19	0	0	0	
Nov-19	0	0	0	
Dec-19	0	0.56754	0.56754	
Jan-20 Fob 20	2.378212879	25.77688405	28.15509693	
Feb-20 Mor 20	0	0	0	
Mar-20	0	0	0	
Apr-20 May-20	0	0	0	
Jun-20	21.59871536	5.134510988	26.73322634	
Jul-20	46.92653931	96.70535437	143.6318937	
Aug-20	48.71493869	37.50991861	86.2248573	
Sep-20	8.456439157	13.98279776	22.43923692	
Oct-20	0.0905175	0.14274809	0.23326559	
Nov-20	0.0000170	47.48393909	47.48393909	
Dec-20	45.44079989	49.68238172	95.12318162	349.59
Jan-21	0	0	0	328.60
Feb-21	26.38565636	29.97748522	56.36314157	354.11
Mar-21	0	21.41621525	21.41621525	361.89
Apr-21	3.242706704	0	3.242706704	363.51
May-21	9.292254578	0	9.292254578	368.16
Jun-21	13.88379283	5.963359776	19.84715261	341.75
Jul-21	21.76033723	31.80165386	53.56199109	345.22
Aug-21	30.43335921	19.71126157	50.14462078	344.16
Sep-21	19.35115726	25.27552053	44.62667779	354.54
Oct-21	2.3355	0	2.3355	355.71
Nov-21	1.961259995	0	1.961259995	356.69
Dec-21	10.34558629	12.5521333	22.89771959	367.86
Jan-22	24.87883797	45.80026919	70.67910716	389.12
Feb-22	12.96817128	10.09241299	23.06058428	400.65
Mar-22	6.516012387	0	6.516012387	403.91
Apr-22	0	2.573153754	2.573153754	405.19
May-22	1.201624575	10.57122265	11.77284722	411.08
Jun-22	19.82746118	40.6779565	60.50541769	<b>427.97</b>
Jul-22	12.82682109	31.21814447	44.04496557	378.17
Aug-22	14.28490408	38.01516917	52.30007324	361.21
Sep-22	4.140150932	13.27557518	17.41572611	358.70
Oct-22	0	0	0	358.58
Nov-22	34.75565504	2.435346191	37.19100123	353.44
Dec-22	18.29835256	24.50609273	42.80444528	327.28
Jan-23	0.79331474	0	0.79331474	327.67
Feb-23	26.33323527	8.478041473	34.81127675	316.90
Mar-23	3.623814695	35.88411299	39.50792768	325.94
Apr-23	2.082851024	36.94164796	39.02449899	343.83

		GHC	G	
Date	Unit 5	Unit 6	Total	Rolling 24-month
				annual average
Jan-19	0	101460.2	101460.2	<u>0</u>
Feb-19	0	14020.24	14020.24	
Mar-19	0	98.70753	98.70753	
Apr-19	0	0	0	
May-19	0	0	0	
Jun-19	131631.9	159883.9	291515.7	
Jul-19	0	181637	181637	
Aug-19	56126.01	161253.4	217379.4	
Sep-19	32439.35	64459.67	96899.02	
Oct-19	0	0	0	
Nov-19	0	0	0	
Dec-19	0	17.63173	17.63173	
Jan-20	8980.556	93579.81	102560.4	
Feb-20	0	0	0	
Mar-20	0	0	0	
Apr-20	0	0	0	
May-20	0	0	0	
Jun-20	86395.51	21714.5	108110	
Jul-20	170056.2	379741	549797.3	
Aug-20	184288.3	144440.7	328729	
Sep-20	34026.07	53385.03	87411.1	
Oct-20	020.07	1636.569	1636.569	
Nov-20	0	189718.5	189718.5	
	173290.8	199297.5		1 221 700
Dec-20	-	- 1	372588.4 0	<u>1,321,790</u> 1,271,059
Jan-21	0 103917	0	-	
Feb-21		116126.7	220043.8	1,374,071
Mar-21	15107 57	83561.41	83561.41	1,415,803
Apr-21	15127.57	0	15127.57	1,423,366
May-21	37672.27	0	37672.27	1,442,202
Jun-21	59824.65	26218.6	86043.25	1,339,466
Jul-21	87865.65	132153.3	220019	1,358,657
Aug-21	126047.4	81105.28	207152.7	1,353,544
Sep-21		106822.7	185134.1	1,397,661
Oct-21	6367.309	0	6367.309	1,400,845
Nov-21	1926.796	0	1926.796	1,401,808
Dec-21	40569.45	60911.82	101481.3	1,452,540
Jan-22	106692.2	168694.7	275386.9	1,538,954
Feb-22	43411.24	45349.32	88760.56	1,583,334
Mar-22	26113.74	0	26113.74	1,596,391
Apr-22	0	8832.535	8832.535	1,600,807
May-22	10332.21	60953.86	71286.08	1,636,450
Jun-22	73644.48	162242	235886.5	1,700,338
Jul-22	47796.84	128881.6	176678.4	1,513,779
Aug-22	60414	170678.8	231092.8	1,464,961
Sep-22	18479.13	59706.75	78185.88	1,460,348
Oct-22	0	0	0	1,459,530
Nov-22	45833.57	102781	148614.6	1,438,978
Dec-22	75438.28	112705.2	188143.5	1,346,755
Jan-23	3643.492	0	3643.492	1,348,577
Feb-23	104581.2	35176.95	139758.2	1,308,434
Mar-23	14708.99	151006.1	165715.1	1,349,511

## Appendix C Control Technology Review from EPA's RBLC



#### Table C-1. RBLC NO<sub>X</sub> Summary for Large Combustion Turbines, Simple Cycle, Natural Gas-Fired

BLCID	Facility Name	Permit Issuance Date	Date Last Updated	Process Name	Throughput	Control Method Description	Emission Limit	BASIS
ЛI-0454	LBWL-ERICKSON STATION	12/20/2022	5/15/2023	EUCTGSC1A nominally rated 667 MMBTU/H natural gas-fired	667 MMBTU/H	DLNB and good combustion practices.	25 PPM	BACT-PS
N-0187	TENNESSEE VALLEY AUTHORITY - JOHNSONVILLE COMBUSTION	08/31/2022	3/17/2023		465.8 MMBtu/hr	dry low-NOx burners selective catalytic reduction	5 PPMVD @ 15% O2	BACT-PS
0036	WESTAR ENERGY - EMPORIA ENERGY CENTER	03/18/2013	3/1/2023	GE LM6000PC SPRINT Simple cycle combustion turbine	405.3 MMBTU/hr	water injection	25 PPMDV	BACT-P
	WESTAR ENERGY - EMPORIA ENERGY CENTER	03/18/2013	3/1/2023	GE 7FA Simple Cycle Combustion Turbine	1780 MMBTU/HR		9 PPMDV	BACT-P
JU36	WESTAR ENERGY - EMPORIA ENERGY CENTER	03/18/2013	3/1/2023	GE 7FA Simple Cycle Combustion Turbine	1780 MIMBTU/HK	dry low NOx burners and fire only pipeline natural gas	9 PPIVIDV	BAC1-F
	GAS TREATMENT PLANT	08/13/2020		Six (6) Simple Cycle Gas-Turbines (Power Generation)	386 MMBtu/hr	DLN combustors and Good Combustion Practices	15 PPMV @ 15% O2	BACT-F
0088	LIQUEFACTION PLANT	07/07/2022	8/16/2022	Six Simle Cycle Gas-Fired Turbines	1113 MMBtu/hr	SCR, DLN combustors, and good combustion practices	2 PPMV @ 15% O2	BACT-F
0933	NACERO PENWELL FACILITY	11/17/2021	3/8/2022	TURBINE	0	LOW NOX BURNERS AND SCR	9 PPMVD	BACT-
0329	COLBERT COMBUSTION TURBINE PLANT	09/21/2021	3/4/2022	Three 229 MW Simple Cycle Combustion Turbines	229 MW		9 PPMVD	BACT-I
0383	LAKE CHARLES LNG EXPORT TERMINAL	09/03/2020	3/4/2022	Turbines (EQT0020 - EQT0031)	0	LNB + SCR	3.1 PPMVD @15%O2	BACT-I
0900	ECTOR COUNTY ENERGY CENTER	08/17/2020	9/10/2021	Simple Cycle Turbines	0	Equipped with dry-low NOx burners with best	9 PPMVD	BACT-I
		,-,	-,,			management practices and good combustion practices. Minimize the duration of startup and shutdown events to less than 60 minutes per event. Limit MSS by 140 lb/hr maximum allowable emission rate for each turbine.		
						construct.		
I-0447	LBWLERICKSON STATION	01/07/2021	9/10/2021	EUCTGSC1-natural gas fired simple cycle CTG	667 MMBTU/H	DLNB and good combustion practices.	25 PPM	BACT-P
-0441	LBWLERICKSON STATION	12/21/2018	8/9/2021	EUCTGSC1-A nominally rated 667 MMBTU/hr natural gas-fired	667 MMBTU/H	Dry low NOx burners (DLNB) and good combustion practices.	25 PPM	BACT-I
0343	SABINE PASS LNG TERMINAL	09/06/2019	8/6/2021	gas turbines during startups, shutdowns, and maintenance	0	good combustion practices	96 PPMV	BACT-
	DRIFTWOOD LNG FACILITY	07/10/2018	8/6/2021	Compressor Turbines (20)	540 mm btu/hr	DLN and SCR	5 PPMVD	BACT-
	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG01 CO - Simple-Cycle Combustion Turbine 1 (Commissioning	2201 MM BTU/hr	Pipeline quality natural gas & dry-low-NOX burners	240 LB/HR	BACT-
	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG02 CO - Simple-Cycle Combustion Turbine 2 (Commissioning	2201 MM BTU/hr	Pipeline quality natural gas & dry-low-NOX burners	240 LB/HR	BACT-
	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG01 SUSD - Simple-Cycle Combustion Turbine 1 (Startup/Shu	2201 MM BTU/hR	Pipeline quality natural gas & dry-low-NOX burners	86.38 LB/HR	BACT-
-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG02 SUSD - Simple-Cycle Combustion Turbine 2 (Startup/Shu	2201 MM BTU/hr	Pipeline quality natural gas & dry-low-NOX burners	86.38 LB/HR	BACT
-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG01 NO - Simple-Cycle Combustion Turbine 1 (Normal Opera	2201 MM BTU/hr	Pipeline quality natural gas & dry-low-NOX burners	9 PPMVD @15%O2	BACT
-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG02 NO - Simple-Cycle Combustion Turbine 2 (Normal Opera	2201 MM BTU/hr	Pipeline quality natural gas & dry-low-NOX burners	9 PPMVD @15%O2	BACT
0326	DOSWELL ENERGY CENTER	10/04/2016	6/19/2019	Two (2) GE 7FA simple cycle combustion turbines	1961 MMBTU/HR	Low NOx Burners/Combustion Technology	9 PPM	BACT-
0331	CALCASIEU PASS LNG PROJECT	09/21/2018	6/19/2019	Simple Cycle Combustion Turbines (SCCT1 to SCCT3)	927 MM BTU/h	Dry Low NOx Combustor Design, Good Combustion Practices, and Natural Gas Combustion.	9 PPMV	BACT-
V-0028	WAVERLY POWER PLANT	03/13/2018	2/20/2010	GE 7FA.004 Turbine	167.8 MW	Dry LNB	69 LB/HR	BACT-I
	JACKSON COUNTY GENERATORS		2/20/2019		920 MW		9 PPMVD	BACT-I
		01/26/2018		Combustion Turbines		Dry low NOx burners		
	RIO BRAVO PIPELINE FACILITY	12/17/2018	2/19/2019	Refrigeration Compression Turbines	967 MMBTU/HR	Dry Low NOx burners. Good combustion practices	9 PPMVD	BACT-
-0026	WAVERLY FACILITY	01/23/2017	5/1/2018	GE Model 7FA Turbine	1571 mmbtu/hr	Dry Low-NOx Combustion System (DLNB), Water Injection	9 PPM	BACT-
0734	CLEAR SPRINGS ENERGY CENTER (CSEC)	05/08/2015	4/18/2018	Simple Cycle Turbine	183 MW	dry low-NOx (DLN) burners	9 PPMVD @ 15% O2	BACT-I
0816	CORPUS CHRISTI LIQUEFACTION	02/14/2017	4/18/2018	Refrigeration compressor turbines	40000 HP	Dry low emission burners	25 PPMDV	BACT-F
	MUSTANG STATION	08/16/2017	4/18/2018	· ·	162.8 MW	Dry low-NOx burners	9 PPMVD	BACT-I
	BAYONNNE ENERGY CENTER	08/26/2016		Simple Cycle Stationary Turbines firing Natural gas	2143980 MMBTU/YR	Selective Catalytic Reduction, water injection, use of	2.5 PPMVD@15%02	LAER
0264	MONTPELIER GENERATING STATION	01/06/2017	11/17/2017	PRATT & amp; TWIN-PAC SIMPLE CYCLE TURBINES	270.9 MMBTU/H	natural gas a low NOx emitting fuel WATER INJECTION	25 PPMV	BACT-
	PUENTE POWER	10/13/2016	11/9/2017	Gas turbine	262 MW	WATER INJECTION	2.5 PPMVD	OTHE
						Advanced law NOv however, should avoid a started		
0106	GREENIDGE STATION	09/07/2016	9/28/2017	Turbine - natural gas	107 MW	Advanced low NOx burners, closed-coupled and staged over-fire air, Selective Non-Catalytic Reduction, and Selective Catalytic Reduction.	0.03 LB/MMBTU	LAER
0261	VERMILLION GENERATING STATION	02/28/2017	8/9/2017	SIMPLE CYCLE, NATURAL GAS FIRED COMBUSTION TURBINES	80 MW	GOOD COMBUSTION PRACTICES	250 LB/H	BACT-
-0030	LONESOME CREEK GENERATING STATION	09/16/2013	6/28/2017		412 MMBTU/H	SCR	5 PPMVD	BACT-
	GAINES COUNTY POWER PLANT	04/28/2017	6/12/2017		227.5 MW	Dry Low NOx burners (control), natural gas, good combustion practices, limited operating hours	9 PPMV	BACT-
007-		00/05/272				(prevention)		
	R.M. HESKETT STATION	02/22/2013	4/28/2017		986 MMBTU/H	Dry low-NOx combustion (DLN)	9 PPMVD @15% OYYG	
0121	INVENERGY NELSON EXPANSION LLC	09/27/2016	4/28/2017	Two Simple Cycle Combustion Turbines	190 MW	Dry low-NOx combustion technology for natural gas and low-NOx combustion technology and water injection for UISD.	0.033 LB/MMBTU	BACT-F
-0307	MAGNOLIA LNG FACILITY	03/21/2016	4/28/2017	Gas Turbines (8 units)	333 mm btu/hr	Dry Low NOX burners and good combustion practices	25 PPMVD	BACT-
0316	CAMERON LNG FACILITY	02/17/2017	4/28/2017		1069 mm btu/hr	good combustion practices and dry low nox burners	15 PPMVD	BACT-
	PIONEER GENERATING STATION	05/14/2013	11/3/2016		451 MMBTU/H	Water injection plus SCR	5 PPPMVD	BACT-I
-0029								
	ANTELOPE ELK ENERGY CENTER	04/22/2014	7/29/2016	combustion turbine	202 MW	DLN combustors	9 PPMVD	BACT-I

#### Table C-1. RBLC NO<sub>X</sub> Summary for Large Combustion Turbines, Simple Cycle, Natural Gas-Fired

		Permit	Date Last					
RBLCID	Facility Name	Issuance Date	Updated	Process Name	Throughput	Control Method Description	Emission Limit	BASIS
TX-0794	HILL COUNTY GENERATING FACILITY	04/07/2016	7/29/2016	Simple cycle turbine	171 MW	Emission controls consist of dry low-NOx combustors (DLN). DLN combustors use two stages of combustion, transitioning from initial startup with fuel and flame in the primary nozzles only, through a lean lean stage with fuel and flame in the primary and secondary nozzles, to fuel in the secondary stage only, extinguishing the primary flame, and in full operation, premix mode, with fuel to both nozzles, but flame only in the second stage. When natural gas and air are well-mixed before combustion, the flame temperature and resulting NOx emissions are greatly reduced compared to conventional diffusion flame combustion.	9 PPMVD @ 15% 02	BACT-PSD
MD-0043	PERRYMAN GENERATING STATION	07/01/2014	7/25/2016	(2) 60-MW SIMPLE CYCLE COMBUSTION TURBINES, FIRING NAT	120 MW	USE OF NATURAL GAS, WATER/STEAM INJECTION, AND A SELECTIVE CATAYTIC REDUCTION (SCR) SYSTEM	2.5 PPMVD @ 15% O2	LAER
X-0764	NACOGDOCHES POWER ELECTRIC GENERATING PLANT	10/14/2015	7/6/2016	Natural Gas Simple Cycle Turbine (>25 MW)	232 MW	Dry Low NOx burners, good combustion practices, limited operations	9 PPMVD @ 15% O2	BACT-PSD
X-0768	SHAWNEE ENERGY CENTER	10/09/2015	7/6/2016	Simple cycle turbines greater than 25 megawatts (MW)	230 MW	Dry Low NOx burners	9 PPMVD @ 15% O2	BACT-PSI
(-0769	VAN ALSTYNE ENERGY CENTER (VAEC)	10/27/2015	7/6/2016	Simple Cycle Turbine	183 MW	DLN burners	9 PPMVD @ 15% O2	BACT-PS
(-0777	UNION VALLEY ENERGY CENTER	12/09/2015	7/6/2016	Simple Cycle Turbine	183 MW	dry low NOX burners	9 PPMVD @ 15% O2	BACT-PSI
L-0354	LAUDERDALE PLANT	08/25/2015	7/6/2016	Five 200-MW combustion turbines	2100 MMBtu/hr (approx)	Dry-low-NOx combustion system. Wet injection when firing ULSD.	9 PPMVD@15%O2	BACT-PSI
L-0355	FORT MYERS PLANT	09/10/2015	7/6/2016	Combustion Turbines	2262.4 MMBtu/hr gas	DLN and wet injection (for ULSD operation)	9 PPMVD@15% O2	BACT-PSI
X-0733	ANTELOPE ELK ENERGY CENTER	05/12/2015	6/8/2016	Simple Cycle Turbine & amp; Generator	202 MW	Dry Low NOx burners	9 PPMVD AT 15% O2	BACT-PSI
X-0686	ANTELOPE ELK ENERGY CENTER	04/22/2014	5/9/2016	Combustion Turbine-Generator(CTG)	202 MW	DLN	9 PPM	BACT-PS
X-0694	INDECK WHARTON ENERGY CENTER	02/02/2015	5/9/2016	(3) combustion turbines	220 MW	DLN combustors	9 PPMVD	BACT-PS
X-0691	PH ROBINSON ELECTRIC GENERATING STATION	05/20/2014	5/9/2016	(6) simple cycle turbines	65 MW	DLN combustors	15 PPMVD	BACT-PSI
X-0695	ECTOR COUNTY ENERGY CENTER	08/01/2014	5/9/2016	(2) combustion turbines	180 MW	DLN combustors	9 PPMVD	BACT-PSI
X-0696	ROAN'S PRAIRIE GENERATING STATION	09/22/2014	5/9/2016	(2) simple cycle turbines	600 MW	DLN combustors	9 PPMVD	BACT-PS
K-0688	SR BERTRON ELECTRIC GENERATION STATION	12/19/2014	5/9/2016	Simple cycle natural gas turbines	225 MW	DLN	9 PPM	BACT-PS
K-0701	ECTOR COUNTY ENERGY CENTER	05/13/2013	5/9/2016	Simple Cycle Combustion Turbines	180 MW	Dry low NOx combustor	9 PPMVD	BACT-PS
0R-0050	TROUTDALE ENERGY CENTER, LLC	03/05/2014	5/5/2016	GE LMS-100 combustion turbines, simple cycle with water injec	1690 MMBTU/H	Utilize water injection when combusting natural gas or ULSD; Utilize selective catalytic reduction (SCR) with aqueous ammonia injection at all times except during startup and shutdown; Limit the time in startup or shutdown.	2.5 PPMDV AT 15% O2	BACT-PS
L-0346	LAUDERDALE PLANT	04/22/2014	5/5/2016	Five 200-MW combustion turbines	2000 MMBtu/hr (approx)	Required to employ dry low-NOx technology and wet injection. Water injection must be used when firing ULSD.	9 PPMVD @ 15% 02	BACT-PS
TX-0672	CORPUS CHRISTI LIQUEFACTION PLANT	09/12/2014	5/5/2016	Refrigeration compressor turbines	40000 hp	Dry low emission combustors	25 PPMVD	BACT-PS
X-0672	CORPUS CHRISTI LIQUEFACTION PLANT	09/12/2014	5/5/2016	Refrigeration compressor turbines	40000 hp	dry low emission combustors	25 PPMVD	BACT-PS
N-0173	MIDWEST FERTILIZER CORPORATION	06/04/2014	5/4/2016	· ·	92.5 MMBTU/H	GOOD COMBUSTION PRACTICES AND PROPER DESIGN, USE NATURAL GAS	183.7 LB/MMCF	BACT-PS
0-0076	PUEBLO AIRPORT GENERATING STATION	12/11/2014	2/19/2016	Turbines - two simple cycle gas	799.7 MMBTU/H each	SCR and dry low NOx burners	23 LB/H	BACT-PS

#### Table C-2. RBLC CO Summary for Large Combustion Turbines, Simple Cycle, Natural Gas-Fired

RBLCID	Facility Name	Permit Issuance Date	Date Last Updated	Process Name	Throughput	Control Method Description	Emission Limit	BASIS
*MI-0454	LBWL-ERICKSON STATION	12/20/2022		EUCTGSC1A nominally rated 667 MMBTU/H natural gas-fired	667 MMBTU/H	Dry low NOx burners and good combustion practices.	9 LB/H	BACT-PSD
*TN-0187	TENNESSEE VALLEY AUTHORITY - JOHNSONVILLE COMBUSTION			Ten Simple Cycle NG Turbines	465.8 MMBtu/hr	oxidation catalyst	5 PPMVD @ 15% O2	BACT-PSD
KS-0036	WESTAR ENERGY - EMPORIA ENERGY CENTER	03/18/2013	3/1/2023	GE LM6000PC SPRINT Simple cycle combustion turbine	405.3 MMBTU/hr	utilize efficient combustion/design technology	63.8 LB/HR	BACT-PSD
KS-0036	WESTAR ENERGY - EMPORIA ENERGY CENTER	03/18/2013		GE 7FA Simple Cycle Combustion Turbine	1780 MMBTU/HR	utilize efficient combustion/design technology	39 LB/HR	BACT-PSD
AK-0085	GAS TREATMENT PLANT	08/13/2020	8/16/2022	Six (6) Simple Cycle Gas-Turbines (Power Generation)	386 MMBtu/hr	Good Combustion Practices and burning clean fuels (NG)	15 PPMV @ 15% O2	BACT-PSD
AK-0088	LIQUEFACTION PLANT	07/07/2022	8/16/2022	Six Simle Cycle Gas-Fired Turbines	1113 MMBtu/hr	Oxidation Catalyst and good combustion practices	5 PPMV @ 15% O2	BACT-PSD
TX-0933	NACERO PENWELL FACILITY	11/17/2021	3/8/2022	TURBINE	0	Oxidization catalyst, good combustion practices and the	9 PPMVD	BACT-PSD
41.0220	COLDEDT COMPLICTION TURDING DUANT	00/24/2024	2/4/2022	These 220 MW/ Clearly Could Combustion Turkings	220 104	use of gaseous fuel	0.00040/0	DACT DOD
AL-0329	COLBERT COMBUSTION TURBINE PLANT	09/21/2021		Three 229 MW Simple Cycle Combustion Turbines	229 MW		9 PPMVD	BACT-PSD
LA-0383	LAKE CHARLES LNG EXPORT TERMINAL LBWLERICKSON STATION	09/03/2020	3/4/2022	Turbines (EQT0020 - EQT0031)	0	catalytic oxidation and carbon monoxide turndown	10 PPMVD @15%O2	BACT-PSD
MI-0447 MI-0441	LBWLERICKSON STATION	01/07/2021	9/10/2021 8/9/2021		667 MMBTU/H 667 MMBTU/H	Dry low NOx burners and good combustion practices	9 LB/H	BACT-PSD BACT-PSD
1011-0441	LBWLERICKSON STATION	12/21/2018	8/9/2021	EUCTGSC1-A nominally rated 667 MMBTU/hr natural gas-fired :	667 MIMBIU/H	Dry low NOx burners and good combustion practices.	9 LB/H	BAC1-PSD
LA-0349	DRIFTWOOD LNG FACILITY	07/10/2018	8/6/2021	Compressor Turbines (20)	540 mm btu/hr	Good Combustion Practices	25 PPMVD	BACT-PSD
*LA-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG01 CO - Simple-Cycle Combustion Turbine 1 (Commissioning	2201 MM BTU/hr	Good combustion practices & use of pipeline quality natural gas	2000 LB/HR	BACT-PSD
*LA-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG02 CO - Simple-Cycle Combustion Turbine 2 (Commissioning	2201 MM BTU/hr	Good combustion practices & use of pipeline quality	2000 LB/HR	BACT-PSD
*LA-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG01 SUSD - Simple-Cycle Combustion Turbine 1 (Startup/Shu	2201 MM BTU/hR	natural gas Good combustion practices & use of pipeline quality	800.08 LB/HR	BACT-PSD
*LA-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG02 SUSD - Simple-Cycle Combustion Turbine 2 (Startup/Shu	2201 MM BTU/hr	natural gas Good combustion practices & use of pipeline quality	800.08 LB/HR	BACT-PSD
						natural gas		
*LA-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG01 NO - Simple-Cycle Combustion Turbine 1 (Normal Opera	2201 MM BTU/hr	Good combustion practices & use of pipeline quality natural gas	6 PPMVD AT 15% OXY	GEIBACT-PSD
*LA-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG02 NO - Simple-Cycle Combustion Turbine 2 (Normal Opera	2201 MM BTU/hr	Good combustion practices & use of pipeline quality natural gas	6 PPMVD AT 15% O2	BACT-PSD
VA-0326	DOSWELL ENERGY CENTER	10/04/2016	6/19/2019	Two (2) GE 7FA simple cycle combustion turbines	1961 MMBTU/HR	Pipeline Quality Natural Gas	13.99 LB	BACT-PSD
LA-0331	CALCASIEU PASS LNG PROJECT	09/21/2018			927 MM BTU/h	Proper Equipment Design, Proper Operation, and Good	25 PPMV	BACT-PSD BACT-PSD
						Combustion Practices.	22.0.10.000	
WV-0028	WAVERLY POWER PLANT	03/13/2018			167.8 MW	Combustion Controls	33.9 LB/HR	BACT-PSD
TX-0833	JACKSON COUNTY GENERATORS	01/26/2018			920 MW	Dry low NOx burners	9 PPMVD	BACT-PSD
TX-0851 PA-0306	RIO BRAVO PIPELINE FACILITY TENASKA PA PARTNERS/WESTMORELAND GEN FAC	12/17/2018 02/12/2016		Refrigeration Compression Turbines Large combustion turbine	967 MMBTU/HR 0	Dry Low NOx burners. Good combustion practices Oxidation Catalyst and good combustion practice	25 PPMVD 15.9 LB/HR	BACT-PSD BACT-PSD
WV-0026	WAVERLY FACILITY	02/12/2016 01/23/2017	5/1/2018	GE Model 7FA Turbine	1571 mmbtu/hr	Good Combustion Practices	15.9 LB/HK 9 PPM	BACT-PSD BACT-PSD
TX-0734	CLEAR SPRINGS ENERGY CENTER (CSEC)	05/08/2015			183 MW	DLN burners and good combustion practices	9 PPMVD @ 15% O2	BACT-PSD BACT-PSD
TX-0734 TX-0816	CORPUS CHRISTI LIQUEFACTION	02/14/2017	4/18/2018		40000 HP	Dry low emission burners	29 PPMDV	BACT-PSD BACT-PSD
NJ-0016	BAYONNNE ENERGY CENTER	02/14/201/ 08/26/2016	4/18/2018		2143980 MMBTU/YR	Add-on control is CO Oxidation Catalyst, and use of	5 PPM/DV 5 PPM/D@15%02	OTHER CAS
						natural gas as fuel for pollution prevention		
NJ-0086	BAYONNNE ENERGY CENTER	08/26/2016		Simple Cycle Stationary Turbines firing Ultra Low Sulfur Distillat	720 H/YR	Oxidation Catalyst	5 PPMVD@15%O2	OTHER CAS
IN-0264	MONTPELIER GENERATING STATION	01/06/2017	11/17/2017	PRATT & amp; TWIN-PAC SIMPLE CYCLE TURBINES	270.9 MMBTU/H	NATURAL GAS AS PRIMARY FUEL; GOOD COMBUSTION PRACTICES	0.2 LB/MMBTU	BACT-PSD
NY-0106	GREENIDGE STATION	09/07/2016	9/28/2017	Turbine - natural gas	107 MW		0.095 LB/MMBTU	BACT-PSD
IN-0261	VERMILLION GENERATING STATION	02/28/2017	8/9/2017	SIMPLE CYCLE, NATURAL GAS FIRED COMBUSTION TURBINES	80 MW	GOOD COMBUSTION PRACTICES	525 LB/H	BACT-PSD
ND-0030	LONESOME CREEK GENERATING STATION	09/16/2013	6/28/2017	Natural Gas Fired Simple Cycle Turbines	412 MMBTU/H	Oxidation Catalyst	6 PPMVD	BACT-PSD
TX-0819	GAINES COUNTY POWER PLANT	04/28/2017	6/12/2017	Simple Cycle Turbine	227.5 MW	Good combustion practices; limited operating hours	9 PPMVD	BACT-PSD
ND-0028	R.M. HESKETT STATION	02/22/2013	4/28/2017	Combustion Turbine	986 MMBTU/H	Good Combustion	25 PPMVD @ 15% OXYO	GENBACT-PSD
LA-0307	MAGNOLIA LNG FACILITY	03/21/2016	4/28/2017	Gas Turbines (8 units)	333 mm btu/hr	good combustion practices and fueled by natural gas	0.062 LB/MM BTU	BACT-PSD
LA-0316	CAMERON LNG FACILITY	02/17/2017	4/28/2017	Gas turbines (9 units)	1069 mm btu/hr	good combustion practices and fueled by natural gas	15 PPMVD	BACT-PSD
ND-0029	PIONEER GENERATING STATION	05/14/2013	11/3/2016	Natural gas-fired turbines	451 MMBTU/H	Catalytic oxidation system	6 PPMVD	BACT-PSD
TX-0693	ANTELOPE ELK ENERGY CENTER	04/22/2014	7/29/2016	combustion turbine	202 MW	DLN combustors, good combustion practices	9 PPMVD	BACT-PSD
TX-0788	NECHES STATION	03/24/2016		Large Combustion Turbines > 25 MW	232 MW	good combustion practices	9 PPM	BACT-PSD
TX-0794	HILL COUNTY GENERATING FACILITY	04/07/2016		Simple cycle turbine	171 MW	Premixing of fuel and air enhances combustion efficiency and minimizes emissions.	9 PPMVD @ 15% O2	BACT-PSD
TX-0794	HILL COUNTY GENERATING FACILITY	04/07/2016	7/29/2016	Simple Cycle Turbine	171 MW	combustor designed for complete combustion and	20 PPMVD @ 15% O2	BACT-PSD
TX-0764	NACOGDOCHES POWER ELECTRIC GENERATING PLANT	10/14/2015	7/6/2016	Natural Gas Simple Cycle Turbine (>25 MW)	232 MW	therefore minimizes emissions dry low NOx burners, good combustion practices,	9 PPMVD @ 15% O2	BACT-PSD
TX-0768	SHAWNEE ENERGY CENTER	10/09/2015	7/6/2016	Simple cycle turbines greater than 25 megawatts (MW)	230 MW	limited operation dry low NOx burners and Imiited operation, clean fuel	9 PPMVD @ 15% O2	BACT-PSD
TX 0760								
TX-0769	VAN ALSTYNE ENERGY CENTER (VAEC)	10/27/2015		Simple Cycle Turbine	183 MW	DLN burners and good combustion practices	9 PPMVD @ 15% O2	BACT-PSD
TX-0777	UNION VALLEY ENERGY CENTER	12/09/2015		Simple Cycle Turbine	183 MW	dry low NOx burners and good combustion practices	9 PPMVD @ 15% O2	BACT-PSD
FL-0354	LAUDERDALE PLANT	08/25/2015		Five 200-MW combustion turbines	2100 MMBtu/hr (approx)	Good combustion minimizes CO formation	4 PPMVD@15%O2	BACT-PSD
TX-0733	ANTELOPE ELK ENERGY CENTER	05/12/2015	6/8/2016	Simple Cycle Turbine & amp; Generator	202 MW	Good combustion practices; limited operating hours	9 PPMVD @ 15% O2	BACT-PSD
TX-0686	ANTELOPE ELK ENERGY CENTER	04/22/2014	5/9/2016	Combustion Turbine-Generator(CTG)	202 MW	Good combustion practices; limited hours	9 PPMVD	BACT-PSD
TX-0694	INDECK WHARTON ENERGY CENTER	02/02/2015	5/9/2016	(3) combustion turbines	220 MW	DLN combustors	4 PPMVD	BACT-PSD
TX-0691	PH ROBINSON ELECTRIC GENERATING STATION	05/20/2014	5/9/2016	(6) simple cycle turbines	65 MW	DLN combustors	25 PPMVD	BACT-PSD
TX-0695	ECTOR COUNTY ENERGY CENTER	08/01/2014	5/9/2016	(2) combustion turbines	180 MW	DLN combustors	9 PPMVD	BACT-PSD

#### Table C-2. RBLC CO Summary for Large Combustion Turbines, Simple Cycle, Natural Gas-Fired

		Permit	Date Last					
BLCID	Facility Name	Issuance Date	Updated	Process Name	Throughput	Control Method Description	Emission Limit	BASIS
X-0696	ROANâ€ <sup>™</sup> S PRAIRIE GENERATING STATION	09/22/2014	5/9/2016	(2) simple cycle turbines	600 MW	DLN combustors	9 PPMVD	BACT-PSD
X-0688	SR BERTRON ELECTRIC GENERATION STATION	12/19/2014	5/9/2016	Simple cycle natural gas turbines	225 MW	Good Combustion Practices	9 PPM	BACT-PSD
X-0701	ECTOR COUNTY ENERGY CENTER	05/13/2013	5/9/2016	Simple Cycle Combustion Turbines	180 MW	Good combustion practices	9 PPMVD	BACT-PSD
R-0050	TROUTDALE ENERGY CENTER, LLC	03/05/2014	5/5/2016	GE LMS-100 combustion turbines, simple cycle with water injec	1690 MMBTU/H	Oxidation catalyst;	6 PPMDV AT 15% O2	BACT-PSD
						Limit the time in startup or shutdown.		
-0346	LAUDERDALE PLANT	04/22/2014	5/5/2016	Five 200-MW combustion turbines	2000 MMBtu/hr (approx)	Good combustion practices	4 PPMVD @ 15% O2	BACT-PSD
K-0672	CORPUS CHRISTI LIQUEFACTION PLANT	09/12/2014	5/5/2016	Refrigeration compressor turbines	40000 hp	dry low emission combustors	29 PPMVD	BACT-PSD
K-0672	CORPUS CHRISTI LIQUEFACTION PLANT	09/12/2014	5/5/2016	Refrigeration compressor turbines	40000 hp	dry low emission combustors	29 PPMVD	BACT-PSD
I-0173	MIDWEST FERTILIZER CORPORATION	06/04/2014	5/4/2016	STARTUP HEATER	92.5 MMBTU/H	GOOD COMBUSTION PRACTICES AND PROPER DESIGN,	37.23 LB/MMCF	BACT-PSD
						USE NATURAL GAS		
-0076	PUEBLO AIRPORT GENERATING STATION	12/11/2014	2/19/2016	Turbines - two simple cycle gas	799.7 MMBTU/H each	Catalytic Oxidation.	55 LB/H	BACT-PSD

#### Table C-3. RBLC VOC Summary for Large Combustion Turbines, Simple Cycle, Natural Gas-Fired

		Permit	Date Last					
RBLCID	Facility Name	Issuance Date	•	Process Name	Throughput	Control Method Description	Emission Limit	BASIS
*MI-0454	LBWL-ERICKSON STATION	12/20/2022	5/15/2023	EUCTGSC1A nominally rated 667 MMBTU/H natural gas-fired	667 MMBTU/H	Good combustion practices.	5 LB/H	BACT-PSD
KS-0036	WESTAR ENERGY - EMPORIA ENERGY CENTER	03/18/2013	3/1/2023	GE LM6000PC SPRINT Simple cycle combustion turbine	405.3 MMBTU/hr	utilize efficient combustion/design technology	5.8 LB/HR	BACT-PSD
KS-0036	WESTAR ENERGY - EMPORIA ENERGY CENTER	03/18/2013	3/1/2023	GE 7FA Simple Cycle Combustion Turbine	1780 MMBTU/HR	will utilize efficient combustion/design technology	3.2 LB/HR	BACT-PSD
AK-0085	GAS TREATMENT PLANT	08/13/2020	8/16/2022	Six (6) Simple Cycle Gas-Turbines (Power Generation)	386 MMBtu/hr	Good Combustion Practices and burning clean fuels (NG)	0.0022 LB/MMBTU	BACT-PSD
AK-0088	LIQUEFACTION PLANT	07/07/2022	8/16/2022	Six Simle Cycle Gas-Fired Turbines	1113 MMBtu/hr	Oxidation catalyst and good combustion practices	2 PPMV @ 15% O2	BACT-PSD
TX-0933	NACERO PENWELL FACILITY	11/17/2021	3/8/2022	TURBINE	0	Oxidization catalyst, good combustion practices and the use of gaseous fuel	1.7 PPMVD	BACT-PSD
LA-0383	LAKE CHARLES LNG EXPORT TERMINAL	09/03/2020	3/4/2022	Turbines (EQT0020 - EQT0031)	0	Good combustion practices	0	BACT-PSD
MI-0447	LBWLERICKSON STATION	01/07/2021	9/10/2021	EUCTGSC1-natural gas fired simple cycle CTG	667 MMBTU/H	Good combustion practices	5 LB/H	BACT-PSD
MI-0441	LBWLERICKSON STATION	12/21/2018	8/9/2021	EUCTGSC1-A nominally rated 667 MMBTU/hr natural gas-fired	667 MMBTU/H	Good combustion practices.	5 LB/H	BACT-PSD
LA-0349	DRIFTWOOD LNG FACILITY	07/10/2018	8/6/2021	Compressor Turbines (20)	540 mm btu/hr	Good Combustion Practices and Use of low sulfur facility fuel gas	0.002 LB/MM BTU	BACT-PSD
*LA-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG01 CO - Simple-Cycle Combustion Turbine 1 (Commissioning	2201 MM BTU/hr	Good combustion practices & use of pipeline quality natural gas	0	BACT-PSD
*LA-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG02 CO - Simple-Cycle Combustion Turbine 2 (Commissioning	2201 MM BTU/hr	Good combustion practices & use of pipeline quality natural gas	0	BACT-PSD
*LA-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG01 SUSD - Simple-Cycle Combustion Turbine 1 (Startup/Shu	2201 MM BTU/hR	Good combustion practices & use of pipeline quality natural gas	0	BACT-PSD
*LA-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG02 SUSD - Simple-Cycle Combustion Turbine 2 (Startup/Shu	2201 MM BTU/hr	Good combustion practices & use of pipeline quality natural gas	0	BACT-PSD
*LA-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG01 NO - Simple-Cycle Combustion Turbine 1 (Normal Opera	2201 MM BTU/hr	Good combustion practices & use of pipeline quality natural gas	0	BACT-PSD
*LA-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG02 NO - Simple-Cycle Combustion Turbine 2 (Normal Opera	2201 MM BTU/hr	Good combustion practices & use of pipeline quality natural gas	0	BACT-PSD
LA-0331	CALCASIEU PASS LNG PROJECT	09/21/2018	6/19/2019	Simple Cycle Combustion Turbines (SCCT1 to SCCT3)	927 MM BTU/h	Proper Equipment Design, Proper Operation, and Good Combustion Practices.	1.4 PPMV	BACT-PSD
TX-0833	JACKSON COUNTY GENERATORS	01/26/2018	2/19/2019	Combustion Turbines	920 MW	Good combustion practices	2 PPMVD	BACT-PSD
TX-0851	RIO BRAVO PIPELINE FACILITY	12/17/2018	2/19/2019	Refrigeration Compression Turbines	967 MMBTU/HR	Good combustion practices	2 PPMVD	BACT-PSD
PA-0306	TENASKA PA PARTNERS/WESTMORELAND GEN FAC	02/12/2016		Large Combustion turbine	0	Ox Cat and good combustion practices	1.4 PPMVD @ 15% O2	LAER
TX-0816	CORPUS CHRISTI LIQUEFACTION	02/14/2017	4/18/2018	Refrigeration compressor turbines	40000 HP	Good combustion practices	0.68 LB/H	BACT-PSD
NJ-0086	BAYONNNE ENERGY CENTER	08/26/2016	4/17/2018	Simple Cycle Stationary Turbines firing Natural gas	2143980 MMBTU/YR	Add-on VOC control is Oxidation Catalyst, and use of natural gas as fuel for pollution prevention	2 PPMVD@15%02	OTHER CAS
CA-1238	PUENTE POWER	10/13/2016	11/9/2017	Gas turbine	262 MW	···· 9···· • • • • • • • • •	2 PPMVD AS METHANE	OTHER CAS
IN-0261	VERMILLION GENERATING STATION	02/28/2017	8/9/2017	SIMPLE CYCLE, NATURAL GAS FIRED COMBUSTION TURBINES	80 MW	GOOD COMBUSTION PRACTICES	17.6 LB/H	BACT-PSD
TX-0819	GAINES COUNTY POWER PLANT	04/28/2017	6/12/2017	Simple Cycle Turbine	227.5 MW	Pipeline quality natural gas; limited hours; good combustion practices	2 PPMVD	BACT-PSD
LA-0307	MAGNOLIA LNG FACILITY	03/21/2016	4/28/2017	Gas Turbines (8 units)	333 mm btu/hr	good combustion practices and fueled by natural gas	0	BACT-PSD
LA-0316	CAMERON LNG FACILITY	02/17/2017	4/28/2017	Gas turbines (9 units)	1069 mm btu/hr	good combustion practices and fueled by natural gas	1.6 PPMVD	BACT-PSD
TX-0788	NECHES STATION	03/24/2016	7/29/2016	Large Combustion Turbines > 25 MW	232 MW	good combustion practices	2 PPM	BACT-PSD
TX-0794	HILL COUNTY GENERATING FACILITY	04/07/2016	7/29/2016		171 MW	Premixing of fuel and air enhances combustion efficiency and minimizes emissions.	5.4 LB/H	BACT-PSD
TX-0764	NACOGDOCHES POWER ELECTRIC GENERATING PLANT	10/14/2015	7/6/2016	Natural Gas Simple Cycle Turbine (>25 MW)	232 MW	Pipeline quality natural gas; limited hours; good combustion practices.	2 PPMVD @ 15% O2	BACT-PSD
TX-0768	SHAWNEE ENERGY CENTER	10/09/2015	7/6/2016	Simple cycle turbines greater than 25 megawatts (MW)	230 MW	Pipeline quality natural gas; limited hours; good combustion practices.	1.4 PPMV	BACT-PSD
TX-0733	ANTELOPE ELK ENERGY CENTER	05/12/2015	6/8/2016	Simple Cycle Turbine & amp; Generator	202 MW	Good combustion practices	2 PPMVD @ 15% O2	BACT-PSD
TX-0696	ROAN'S PRAIRIE GENERATING STATION	09/22/2014	5/9/2016	(2) simple cycle turbines	600 MW	good combustion	1.4 PPMVD	BACT-PSD
OR-0050	TROUTDALE ENERGY CENTER, LLC	03/05/2014	5/5/2016	GE LMS-100 combustion turbines, simple cycle with water injec	1690 MMBTU/H	Oxidation catalyst; Limit the time in startup or shutdown.	0	BACT-PSD
FL-0346	LAUDERDALE PLANT	04/22/2014	5/5/2016	Five 200-MW combustion turbines	2000 MMBtu/hr (approx)	Good combustion practice	3.77 LB/H	BACT-PSD
	CORPUS CHRISTI LIQUEFACTION PLANT	09/12/2014	5/5/2016	Refrigeration compressor turbines	40000 hp	good combustion practices	0.6 LB/H	BACT-PSD

#### Table C-4. RBLC PM/PM<sub>10</sub>/PM<sub>2.5</sub> Summary for Large Combustion Turbines, Simple Cycle, Natural Gas-Fired

BLCID	Facility Name	Permit Issuance Date	Date Last Updated	Process Name	Throughput	Control Method Description	Emission Limit	BASIS
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(-0933	NACERO PENWELL FACILITY	11/17/2021	3/8/2022	TURBINE	0	good combustion practices and the use of gaseous fuel	0.0075 LB/MMBTU	BACT-PSD
-0326	DOSWELL ENERGY CENTER	10/04/2016	6/19/2019	Two (2) GE 7FA simple cycle combustion turbines	1961 MMBTU/HR	Good combustion, operation and maintenance practices and use of pipeline quality natural gas	10 LB	BACT-PSD
-0833	JACKSON COUNTY GENERATORS	01/26/2018	2/19/2019	Combustion Turbines	920 MW	Use of pipeline quality natural gas and good combustion practices.	11.81 TON/YR	BACT-PSD
0086	BAYONNNE ENERGY CENTER	08/26/2016	4/17/2018	Simple Cycle Stationary Turbines firing Natural gas	2143980 MMBTU/YR	Use of Natural gas a clean burning fuel	5 LB/H	OTHER C
-0106	GREENIDGE STATION	09/07/2016	9/28/2017	Turbine - natural gas	107 MW	Baghouse with leak detection system.	0.002 LB/MMBTU	BACT-PS
						Bagnouse with leak detection system.	0.0112 LB/MMBTU	
0113	EDGEWOOD ENERGY LLC	07/09/2013	9/28/2017	Turbines - NG	0			BACT-PS
0261	VERMILLION GENERATING STATION	02/28/2017	8/9/2017	SIMPLE CYCLE, NATURAL GAS FIRED COMBUSTION TURBINES	80 MW	GOOD COMBUSTION PRACTICES	5 LB/H	BACT-P
121	INVENERGY NELSON EXPANSION LLC	09/27/2016	4/28/2017	Two Simple Cycle Combustion Turbines	190 MW	turbine design and good combustion practices	0.0038 LB/MMBTU	BACT-P
173	MIDWEST FERTILIZER CORPORATION	06/04/2014	5/4/2016	STARTUP HEATER	92.5 MMBTU/H	GOOD COMBUSTION PRACTICES AND PROPER DESIGN, USE NATURAL GAS	1.9 LB/MMCF	BACT-P
0173	MIDWEST FERTILIZER CORPORATION	06/04/2014	5/4/2016	TWO (2) NATURAL GAS FIRED COMBUSTION TURBINES	283 MMBTU/H, EACH	GOOD COMBUSTION PRACTICES AND PROPER DESIGN	0.0019 LB/MMBTU	BACT-PS
<b>1 - Tota</b> N-0187		08/31/2022	3/17/2023	Ten Simple Cycle NG Turbines	465.8 MMBtu/hr	good combustion design and operating practices and	3.65 LB/HR	BACT-PS
5-0036	WESTAR ENERGY - EMPORIA ENERGY CENTER	03/18/2013		GE LM6000PC SPRINT Simple cycle combustion turbine	405.3 MMBTU/hr	the use of low sulfur fuel fire only pipeline quality natural gas	6 LB/HR	BACT-PS
0036	WESTAR ENERGY - EMPORIA ENERGY CENTER	03/18/2013	3/1/2023	GE 7FA Simple Cycle Combustion Turbine	1780 MMBTU/HR	will fire only pipeline quality natural gas	18 LB/HR	BACT-PS
-0085	GAS TREATMENT PLANT	08/13/2020		Six (6) Simple Cycle Gas-Turbines (Power Generation)	386 MMBtu/hr	Good Combustion Practices and burning clean fuels	0.007 LB/MMBTU	BACT-PS
-0088	LIQUEFACTION PLANT	07/07/2022	8/16/2022	Six Simle Cycle Gas-Fired Turbines	1113 MMBtu/hr	Good combustion practices and burning clean fuel (natural gas)	0.007 LB/MMBTU	BACT-PS
-0819	GAINES COUNTY POWER PLANT	04/28/2017	6/12/2017	Simple Cycle Turbine	227.5 MW	Pipeline quality natural gas; limited hours; good combustion practices	8.5 T/YR	BACT-PS
0764	NACOGDOCHES POWER ELECTRIC GENERATING PLANT	10/14/2015	7/6/2016	Natural Gas Simple Cycle Turbine (>25 MW)	232 MW	Pipeline quality natural gas; limited hours; good combustion practices.	12.09 LB/HR	BACT-PS
0354	LAUDERDALE PLANT	08/25/2015	7/6/2016	Five 200-MW combustion turbines	2100 MMBtu/hr (approx)	Clean fuel prevents PM formation	2 GR. S / 100 SCF GAS	BACT-PS
0355	EORT MYERS PLANT	09/10/2015	7/6/2016	Combustion Turbines	2262.4 MMBtu/hr gas	Use of clean fuels, and annual VE test	2 GR S / 100 SCF GAS	BACT-P
0733	ANTELOPE ELK ENERGY CENTER	05/12/2015		Simple Cycle Turbine & amp; Generator	202 MW	Pipeline quality natural gas; limited hours; good combustion practices.	0	BACT-PS
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-0933	NACERO PENWELL FACILITY	11/17/2021	3/8/2022		0	good combustion practices and the use of gaseous fuel	0.0075 LB/MMBTU	BACT-PS
-0326	DOSWELL ENERGY CENTER	10/04/2016		Two (2) GE 7FA simple cycle combustion turbines	1961 MMBTU/HR	Good combustion, operation and maintenance practices and use of pipeline quality natural gas	12 LB	BACT-PS
-0851	RIO BRAVO PIPELINE FACILITY	12/17/2018		Refrigeration Compression Turbines	967 MMBTU/HR	Good combustion practices and use of pipeline quality natural gas.	7 LB/HR	BACT-PS
0264	MONTPELIER GENERATING STATION	01/06/2017		PRATT & amp; TWIN-PAC SIMPLE CYCLE TURBINES	270.9 MMBTU/H	USE NATURAL GAS AS PRIMARY FUEL; GOOD COMBUSTION PRACTICES	0.0066 LB/MMBTU	BACT-PS
-0106	GREENIDGE STATION	09/07/2016		Turbine - natural gas	107 MW	Baghouse with leak detection system.	8.25 E-3 LB/MMBTU	BACT-PS
0261	VERMILLION GENERATING STATION	02/28/2017	8/9/2017	SIMPLE CYCLE, NATURAL GAS FIRED COMBUSTION TURBINES	80 MW	GOOD COMBUSTION PRACTICES	5 LB/H	BACT-PS
l <sub>10</sub> - Tot II-0454		12/20/2022	5/15/2023	EUCTGSC1A nominally rated 667 MMBTU/H natural gas-fired	667 MMBTU/H	Pipeline quality natural gas, inlet air conditioning and	4.5 LB/H	BACT-PS
0036	WESTAR ENERGY - EMPORIA ENERGY CENTER	03/18/2013	3/1/2023	GE LM6000PC SPRINT Simple cycle combustion turbine	405.3 MMBTU/hr	good combustion practices. fire only pipeline quality natural gas	6 LB/HR	BACT-PS
0036	WESTAR ENERGY - EMPORIA ENERGY CENTER	03/18/2013	3/1/2023	GE 7FA Simple Cycle Combustion Turbine	1780 MMBTU/HR	will fire only pipeline quality natural gas	18 LB/HR	BACT-PS
0085	GAS TREATMENT PLANT	08/13/2020	8/16/2022	Six (6) Simple Cycle Gas-Turbines (Power Generation)	386 MMBtu/hr	Good Combustion Practices and burning clean fuels (NG)	0.007 LB/MMBTU	BACT-PS
0088	LIQUEFACTION PLANT	07/07/2022	8/16/2022	Six Simle Cycle Gas-Fired Turbines	1113 MMBtu/hr	Good combustion practices and burning clean fuel (natural gas)	0.007 LB/MMBTU	BACT-PS
0329	COLBERT COMBUSTION TURBINE PLANT	09/21/2021	3/4/2022	Three 229 MW Simple Cycle Combustion Turbines	229 MW		0.008 LB/MMBTU	BACT-PS
0383	LAKE CHARLES LNG EXPORT TERMINAL	09/03/2020	3/4/2022	Turbines (EQT0020 - EQT0031)	0	Good combustion practices and clean natural gas	0	BACT-PS
0447	LBWLERICKSON STATION	01/07/2021		EUCTGSC1-natural gas fired simple cycle CTG	667 MMBTU/H	Pipeline quality natural gas, inlet air conditioning and good combustion practices.	4.5 LB/H	BACT-PS
-0441	LBWLERICKSON STATION	12/21/2018	8/9/2021	EUCTGSC1-A nominally rated 667 MMBTU/hr natural gas-fired	667 MMBTU/H	Pipeline quality natural gas, inlet air conditioning and good combustion practices.	4.5 LB/H	BACT-PS
-0349	DRIFTWOOD LNG FACILITY	07/10/2018	8/6/2021	Compressor Turbines (20)	540 mm btu/hr	Good Combustion Practices and Use of low sulfur facility fuel gas	0.0066 LB/MM BTU	BACT-PS
A-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG01 CO - Simple-Cycle Combustion Turbine 1 (Commissioning	2201 MM BTU/hr	Good combustion practices and the use of low sulfur fuels (pipeline quality natural gas)	6.3 LB/HR	BACT-PS
4-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG02 CO - Simple-Cycle Combustion Turbine 2 (Commissioning	2201 MM BTU/hr	Good combustion practices and the use of low sulfur fuels (pipeline quality natural gas)	6.3 LB/HR	BACT-P

#### Table C-4. RBLC PM/PM<sub>10</sub>/PM<sub>2.5</sub> Summary for Large Combustion Turbines, Simple Cycle, Natural Gas-Fired

		Permit	Date Last					
RBLCID	Facility Name	Issuance Date	-	Process Name	Throughput	Control Method Description	Emission Limit	BASIS
*LA-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG01 SUSD - Simple-Cycle Combustion Turbine 1 (Startup/Shu	2201 MM BTU/hR	Good combustion practices and the use of low sulfur fuels (pipeline quality natural gas)	6.3 LB/HR	BACT-PSD
*LA-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG02 SUSD - Simple-Cycle Combustion Turbine 2 (Startup/Shu	2201 MM BTU/hr	Good combustion practices and the use of low sulfur fuels (pipeline quality natural gas)	6.3 LB/HR	BACT-PSD
*LA-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG01 NO - Simple-Cycle Combustion Turbine 1 (Normal Opera	2201 MM BTU/hr	Good combustion practices and the use of low sulfur fuels (pipeline quality natural gas)	6.3 LB/HR	BACT-PSD
*LA-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG02 NO - Simple-Cycle Combustion Turbine 2 (Normal Opera	2201 MM BTU/hr	Good combustion practices and the use of low sulfur fuels (pipeline quality natural gas)	6.3 LB/HR	BACT-PSD
LA-0331	CALCASIEU PASS LNG PROJECT	09/21/2018	6/19/2019	Simple Cycle Combustion Turbines (SCCT1 to SCCT3)	927 MM BTU/h	Exclusive Combustion of Fuel Gas and Good Combustion Practices, Including Proper Burner Design.	8 LB/H	BACT-PSD
TX-0833	JACKSON COUNTY GENERATORS	01/26/2018	2/19/2019	Combustion Turbines	920 MW	Use of pipeline quality natural gas and good combustion practices.	11.81 TON/YR	BACT-PSD
TX-0826	MUSTANG STATION	08/16/2017	4/18/2018	Simple Cycle Turbine	162.8 MW	Pipeline quality natural gas and good combustion practices	27 T/YR	BACT-PSD
NJ-0086	BAYONNNE ENERGY CENTER	08/26/2016	4/17/2018	Simple Cycle Stationary Turbines firing Natural gas	2143980 MMBTU/YR	Use of Natural gas a clean burning fuel	5 LB/H	OTHER CASE
TX-0819	GAINES COUNTY POWER PLANT	04/28/2017		Simple Cycle Turbine	227.5 MW	Pipeline quality natural gas; limited hours; good combustion practices	8.5 T/YR	BACT-PSD
ND-0028	R.M. HESKETT STATION	02/22/2013	4/28/2017	Combustion Turbine	986 MMBTU/H	Good Combustion Practices	7.3 LB/H	BACT-PSD
IL-0121	INVENERGY NELSON EXPANSION LLC	09/27/2016	4/28/2017	Two Simple Cycle Combustion Turbines	190 MW	turbine design and good combustion practices	0.005 LB/MMBTU	BACT-PSD
LA-0307	MAGNOLIA LNG FACILITY	03/21/2016	4/28/2017	Gas Turbines (8 units)	333 mm btu/hr	good combustion practices and fueled by natural gas	0	BACT-PSD
LA-0316	CAMERON LNG FACILITY	02/17/2017	4/28/2017	Gas turbines (9 units)	1069 mm btu/hr	good combustion practices and fueled by natural gas	0.0076 LB/MM BTU	BACT-PSD
TX-0788	NECHES STATION	03/24/2016		Large Combustion Turbines > 25 MW	232 MW	good combustion practices, low sulfur fuel	13.4 LB/H	BACT-PSD
TX-0794	HILL COUNTY GENERATING FACILITY	04/07/2016		Simple cycle turbine	171 MW	Premixing of fuel and air enhances combustion efficiency and minimizes emissions.	14 LB/H	BACT-PSD
MD-0043	PERRYMAN GENERATING STATION	07/01/2014	7/25/2016	(2) 60-MW SIMPLE CYCLE COMBUSTION TURBINES, FIRING NAT	120 MW	GOOD COMBUSTION PRACTICES AND USE OF NATURAL GAS	5 LB/H	BACT-PSD
TX-0764	NACOGDOCHES POWER ELECTRIC GENERATING PLANT	10/14/2015	7/6/2016	Natural Gas Simple Cycle Turbine (>25 MW)	232 MW	Pipeline quality natural gas; limited hours; good combustion practices.	12.09 LB/HR	BACT-PSD
TX-0768	SHAWNEE ENERGY CENTER	10/09/2015	7/6/2016	Simple cycle turbines greater than 25 megawatts (MW)	230 MW	Pipeline quality natural gas; limited hours; good combustion practices.	84.1 LB/HR	BACT-PSD
TX-0769	VAN ALSTYNE ENERGY CENTER (VAEC)	10/27/2015	7/6/2016	Simple Cycle Turbine	183 MW	Pipeline Quality Natural Gas	8.6 LB/H	BACT-PSD
TX-0777	UNION VALLEY ENERGY CENTER	12/09/2015	7/6/2016	Simple Cycle Turbine	183 MW	pipeline quality natural gas, good combustion practices	8.6 LB/H	BACT-PSD
FL-0354	LAUDERDALE PLANT	08/25/2015	7/6/2016	Five 200-MW combustion turbines	2100 MMBtu/hr (approx)	Clean fuel prevents PM formation	2 GR. S / 100 SCF	BACT-PSD
FL-0355	FORT MYERS PLANT	09/10/2015	7/6/2016	Combustion Turbines	2262.4 MMBtu/hr gas	Use of clean fuels	2 GR S / 100 SCF GAS	BACT-PSD
TX-0733	ANTELOPE ELK ENERGY CENTER	05/12/2015	6/8/2016	Simple Cycle Turbine & amp; Generator	202 MW	Pipeline quality natural gas; limited hours; good combustion practices.	0	BACT-PSD
OR-0050	TROUTDALE ENERGY CENTER, LLC	03/05/2014	5/5/2016	GE LMS-100 combustion turbines, simple cycle with water injec	1690 MMBTU/H	Utilize only natural gas or ULSD fuel; Limit the time in startup or shutdown.	9.1 LB/H TOTAL PM	BACT-PSD
CO-0075	PUEBLO AIRPORT GENERATING STATION	05/30/2014	2/19/2016	Turbine - simple cycle gas	375 MMBTU/H	Firing of pipeline quality natural gas as defined in 40 CFR Part 72. Specifically, the owner or the operator shall demonstrate that the natural gas burned has total sulfur content less than 0.5 grains/100 SCF.	4.8 LB/H	BACT-PSD
PM <sub>2.5</sub> - Tot	tal							
*MI-0454	LBWL-ERICKSON STATION	12/20/2022	5/15/2023	EUCTGSC1A nominally rated 667 MMBTU/H natural gas-fired	667 MMBTU/H	Pipeline quality natural gas, inlet air conditioning and good combustion practices.	4.5 LB/H	BACT-PSD
AK-0085	GAS TREATMENT PLANT	08/13/2020	8/16/2022	Six (6) Simple Cycle Gas-Turbines (Power Generation)	386 MMBtu/hr	Good Combustion Practices and burning clean fuels (NG)	0.007 LB/MMBTU	BACT-PSD
AK-0088	LIQUEFACTION PLANT	07/07/2022	8/16/2022	Six Simle Cycle Gas-Fired Turbines	1113 MMBtu/hr	Good combustion practices and burning clean fuel (natural gas)	0.007 LB/MMBTU	BACT-PSD
AL-0329	COLBERT COMBUSTION TURBINE PLANT	09/21/2021	3/4/2022	Three 229 MW Simple Cycle Combustion Turbines	229 MW		0.008 LB/MMBTU	BACT-PSD
LA-0383	LAKE CHARLES LNG EXPORT TERMINAL	09/03/2020	3/4/2022	Turbines (EQT0020 - EQT0031)	0	Good combustion practices and clean natural gas	0	BACT-PSD
MI-0447	LBWLERICKSON STATION	01/07/2021	9/10/2021	EUCTGSC1-natural gas fired simple cycle CTG	667 MMBTU/H	Pipeline quality natural gas, inlet air conditioning and good combustion practices.	4.5 LB/H	BACT-PSD
MI-0441	LBWLERICKSON STATION	12/21/2018	8/9/2021	EUCTGSC1-A nominally rated 667 MMBTU/hr natural gas-fired :	667 MMBTU/H	Pipeline quality natural gas, inlet air conditioning and good combustion practices.	4.5 LB/H	BACT-PSD
LA-0349	DRIFTWOOD LNG FACILITY	07/10/2018	8/6/2021	Compressor Turbines (20)	540 mm btu/hr	Good Combustion Practices and Use of low sulfur facility fuel gas	0.0066 LB/MM BTU	BACT-PSD
*LA-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG01 CO - Simple-Cycle Combustion Turbine 1 (Commissioninį	2201 MM BTU/hr	Good combustion practices and the use of low sulfur fuels (pipeline quality natural gas)	6.3 LB/HR	BACT-PSD
*LA-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG02 CO - Simple-Cycle Combustion Turbine 2 (Commissioninį	2201 MM BTU/hr	Good combustion practices and the use of low sulfur fuels (pipeline quality natural gas)	6.3 LB/HR	BACT-PSD
*LA-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG01 SUSD - Simple-Cycle Combustion Turbine 1 (Startup/Shu	2201 MM BTU/hR	Good combustion practices and the use of low sulfur fuels (pipeline quality natural gas)	6.3 LB/HR	BACT-PSD
*LA-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG02 SUSD - Simple-Cycle Combustion Turbine 2 (Startup/Shu	2201 MM BTU/hr	Good combustion practices and the use of low sulfur fuels (pipeline quality natural gas)	6.3 LB/HR	BACT-PSD

#### Table C-4. RBLC PM/PM<sub>10</sub>/PM<sub>2.5</sub> Summary for Large Combustion Turbines, Simple Cycle, Natural Gas-Fired

	For Hilder Manage	Permit	Date Last	D N	<b>-</b> 1	Control Method Description	Factories 11. 11	DACIC
RBLCID	Facility Name	Issuance Date		Process Name	Throughput	Control Method Description	Emission Limit	BASIS
*LA-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG01 NO - Simple-Cycle Combustion Turbine 1 (Normal Opera	2201 MM BTU/hr	Good combustion practices & use of low sulfur fuels (pipeline quality natural gas)	6.3 LB/HR	BACT-PSD
*LA-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG02 NO - Simple-Cycle Combustion Turbine 2 (Normal Opera	2201 MM BTU/hr	Good combustion practices & use of low sulfur fuels (pipeline quality natural gas)	6.3 LB/HR	BACT-PSD
VA-0326	DOSWELL ENERGY CENTER	10/04/2016	6/19/2019	Two (2) GE 7FA simple cycle combustion turbines	1961 MMBTU/HR	Good combustion, operation and maintenance practices and use of pipeline quality natural gas	12 LB	BACT-PSD
LA-0331	CALCASIEU PASS LNG PROJECT	09/21/2018	6/19/2019	Simple Cycle Combustion Turbines (SCCT1 to SCCT3)	927 MM BTU/h	Exclusive Combustion of Fuel Gas and Good Combustion Practices, Including Proper Burner Design.	8 LB/H	BACT-PSD
WV-0028	WAVERLY POWER PLANT	03/13/2018	2/20/2019	GE 7FA.004 Turbine	167.8 MW	Inlet air filtration.	15.09 LB/HR	BACT-PSD
TX-0833	JACKSON COUNTY GENERATORS	01/26/2018	2/19/2019	Combustion Turbines	920 MW	Use of pipeline quality natural gas and good combustion practices.	11.81 TON/YR	BACT-PSD
MD-0044	COVE POINT LNG TERMINAL	06/09/2014	5/14/2018	2 COMBUSTION TURBINES	130 MW	EXCLUSIVE USE OF FACILITY PROCESS FUEL GAS OR PIPELINE QUALITY NATURAL GAS AND GOOD COMBUSTION PRACTICES	0.007 LB/MMBTU	BACT-PSD
WV-0026	WAVERLY FACILITY	01/23/2017	5/1/2018	GE Model 7FA Turbine	1571 mmbtu/hr	Inlet Air Filtration, Use of Natural Gas, Ultra-Low Sulfur Diesel	15 LB/HR	BACT-PSD
TX-0816	CORPUS CHRISTI LIQUEFACTION	02/14/2017	4/18/2018	Refrigeration compressor turbines	40000 HP		0.75 LB/H	BACT-PSD
TX-0826	MUSTANG STATION	08/16/2017	4/18/2018		162.8 MW	Pipeline quality natural gas and good combustion practices	27 T/YR	BACT-PSD
NJ-0086	BAYONNNE ENERGY CENTER	08/26/2016	4/17/2018	Simple Cycle Stationary Turbines firing Natural gas	2143980 MMBTU/YR	Use of natural gas a clean burning fuel	5 LB/H	OTHER CASI
IN-0264	MONTPELIER GENERATING STATION	01/06/2017		PRATT & amp; TWIN-PAC SIMPLE CYCLE TURBINES	270.9 MMBTU/H	NATURAL GAS PRIMARY FUEL; GOOD COMBUSTION PRACTICES	0.0066 LB/MMBTU	BACT-PSD
IN-0261	VERMILLION GENERATING STATION	02/28/2017	8/9/2017	SIMPLE CYCLE, NATURAL GAS FIRED COMBUSTION TURBINES	80 MW	GOOD COMBUSTION PRACTICES	5 LB/H	BACT-PSD
ND-0030	LONESOME CREEK GENERATING STATION	09/16/2013	6/28/2017	Natural Gas Fired Simple Cycle Turbines	412 MMBTU/H		5 LB/H	BACT-PSD
TX-0819	GAINES COUNTY POWER PLANT	04/28/2017	6/12/2017	Simple Cycle Turbine	227.5 MW	Pipeline quality natural gas; limited hours; good combustion practices	8.5 T/YR	BACT-PSD
ND-0028	R.M. HESKETT STATION	02/22/2013	4/28/2017	Combustion Turbine	986 MMBTU/H	Good combustion practices.	7.3 LB/H	BACT-PSD
IL-0121	INVENERGY NELSON EXPANSION LLC	09/27/2016	4/28/2017	Two Simple Cycle Combustion Turbines	190 MW	turbine design and good combustion practices	0.005 LB/MMBTU	BACT-PSD
LA-0316		02/17/2017	4/28/2017	Gas turbines (9 units)	1069 mm btu/hr	good combustion practices and fueled by natural gas	0.0076 LB/MM BTU	BACT-PSD
ND-0029	PIONEER GENERATING STATION	05/14/2013	11/3/2016		451 MMBTU/H		5.4 LB/H	BACT-PSD
TX-0693	ANTELOPE ELK ENERGY CENTER	04/22/2014	7/29/2016		202 MW		0	BACT-PSD
TX-0788	NECHES STATION	03/24/2016	7/29/2016		232 MW	good combustion practices, low sulfur fuel	13.4 LB/H	BACT-PSD
TX-0794	HILL COUNTY GENERATING FACILITY	04/07/2016	7/29/2016		171 MW	Premixing of fuel and air enhances combustion efficiency and minimizes emissions.	14 LB/H	BACT-PSD
TX-0764	NACOGDOCHES POWER ELECTRIC GENERATING PLANT	10/14/2015	7/6/2016	Natural Gas Simple Cycle Turbine (>25 MW)	232 MW	Pipeline quality natural gas; limited hours; good combustion practices.	12.09 LB/HR	BACT-PSD
TX-0768	SHAWNEE ENERGY CENTER	10/09/2015	7/6/2016	Simple cycle turbines greater than 25 megawatts (MW)	230 MW	Pipeline quality natural gas; limited hours; good combustion practices.	84.1 LB/HR	BACT-PSD
TX-0769	VAN ALSTYNE ENERGY CENTER (VAEC)	10/27/2015	7/6/2016	Simple Cycle Turbine	183 MW	Pipeline Quality Natural Gas	8.6 LB/H	BACT-PSD
TX-0777	UNION VALLEY ENERGY CENTER	12/09/2015	7/6/2016	Simple Cycle Turbine	183 MW	pipeline quality natural gas, good combustion practices	8.6 LB/H	BACT-PSD
FL-0354	LAUDERDALE PLANT	08/25/2015	7/6/2016	Five 200-MW combustion turbines	2100 MMBtu/hr (approx)	Clean fuel prevents PM formation	2 GR. S / 100 SCF	BACT-PSD
FL-0355	FORT MYERS PLANT	09/10/2015	7/6/2016	Combustion Turbines	2262.4 MMBtu/hr gas	Use of clean fuels	2 GR S / 100 SCF GAS	
TX-0733	ANTELOPE ELK ENERGY CENTER	05/12/2015	6/8/2016	Simple Cycle Turbine & amp; Generator	202 MW	Pipeline quality natural gas; limited hours; good combustion practices.	0	BACT-PSD
TX-0694	INDECK WHARTON ENERGY CENTER	02/02/2015	5/9/2016	(3) combustion turbines	220 MW		0	BACT-PSD
TX-0691	PH ROBINSON ELECTRIC GENERATING STATION	05/20/2014	5/9/2016	(6) simple cycle turbines	65 MW		0	BACT-PSD
TX-0695	ECTOR COUNTY ENERGY CENTER	08/01/2014	5/9/2016	(2) combustion turbines	180 MW		0	BACT-PSD
TX-0696	ROAN'S PRAIRIE GENERATING STATION	09/22/2014	5/9/2016	(2) simple cycle turbines	600 MW		0	BACT-PSD
TX-0701	ECTOR COUNTY ENERGY CENTER	05/13/2013	5/9/2016	Simple Cycle Combustion Turbines	180 MW	Firing pipeline quality natural gas and good combustion practices	0	BACT-PSD
FL-0346	LAUDERDALE PLANT	04/22/2014	5/5/2016	Five 200-MW combustion turbines	2000 MMBtu/hr (approx)	Good combustion practice and low-sulfur fuel	0	BACT-PSD
TX-0672 IN-0173	CORPUS CHRISTI LIQUEFACTION PLANT MIDWEST FERTILIZER CORPORATION	09/12/2014 06/04/2014	5/5/2016 5/4/2016	Refrigeration compressor turbines STARTUP HEATER	40000 hp 92.5 MMBTU/H	GOOD COMBUSTION PRACTICES AND PROPER DESIGN,	0.72 LB/H 7.6 LB/MMCF	BACT-PSD BACT-PSD
CO-0075	PUEBLO AIRPORT GENERATING STATION	05/30/2014	2/19/2016	Turbine - simple cycle gas	375 MMBTU/H	USE NATURAL GAS Firing of pipeline quality natural gas as defined in 40 CFR Part 72. Specifically, the owner or the operator shall	4.8 LB/H	BACT-PSD
						demonstrate that the natural gas burned has total sulfur content less than 0.5 grains/100 SCF.		

#### Table C-5. RBLC GHG Summary for Large Combustion Turbines, Simple Cycle, Natural Gas-Fired

			Date Last					
BLCID	Facility Name	Issuance Date	Updated	Process Name	Throughput	Control Method Description	Emission Limit	BASIS
11-0454	LBWL-ERICKSON STATION	12/20/2022	5/15/2023	EUCTGSC1A nominally rated 667 MMBTU/H natural gas-fired	667 MMBTU/H	Low carbon fuel (pipeline quality natural gas), good combustion practices, and energy efficiency measures.	318404 T/YR	BACT-PS
N-0187	TENNESSEE VALLEY AUTHORITY - JOHNSONVILLE COMBUSTION	08/31/2022	3/17/2023	Ten Simple Cycle NG Turbines	465.8 MMBtu/hr	Efficient turbine operation and good combustion practices	120 LB/MMBTU	BACT-PS
(-0085	GAS TREATMENT PLANT	08/13/2020	8/16/2022	Six (6) Simple Cycle Gas-Turbines (Power Generation)	386 MMBtu/hr	Good combustion practices and clean burning fuel (NG)	117.1 LB/MMBTU	BACT-P
(-0088	LIQUEFACTION PLANT	07/07/2022	8/16/2022	Six Simle Cycle Gas-Fired Turbines	1113 MMBtu/hr	Good combustion practices and burning clean fuels (natural gas)	117.1 LB/MMBTU	BACT-P
-0933	NACERO PENWELL FACILITY	11/17/2021	3/8/2022	TURBINE	0	good combustion practices and the use of gaseous fuel	0	BACT-P
-0329	COLBERT COMBUSTION TURBINE PLANT	09/21/2021	3/4/2022	Three 229 MW Simple Cycle Combustion Turbines	229 MW		120 LB/MMBTU	BACT-P
-0383	LAKE CHARLES LNG EXPORT TERMINAL	09/03/2020	3/4/2022	Turbines (EQT0020 - EQT0031)	0	Low carbon fuels Energy efficient designs and operation	0	BACT-P
-0900	ECTOR COUNTY ENERGY CENTER	08/17/2020	9/10/2021	Simple Cycle Turbines	0	Best management practices and good combustion practices, clean fuel	1514 LB/MWHR	BACT-P
-0349	DRIFTWOOD LNG FACILITY	07/10/2018	8/6/2021	Compressor Turbines (20)	540 mm btu/hr	Use Low Carbon Fuel, Energy Efficiency Measures, and Good Combustion Practices	0	BACT-P
A-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG01 SUSD - Simple-Cycle Combustion Turbine 1 (Startup/Shu	2201 MM BTU/hR	Facility-wide energy efficiency measures, such as improved combustion measures, and use of pipeline	120 LB/MM BTU	BACT-P
A-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG02 SUSD - Simple-Cycle Combustion Turbine 2 (Startup/Shu	2201 MM BTU/hr	quality natural gas. Facility-wide energy efficiency measures , such as improved combustion measures, and use of pipeline quality natural gas.	120 LB/MM BTU	BACT-P
A-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG01 NO - Simple-Cycle Combustion Turbine 1 (Normal Opera	2201 MM BTU/hr	quality including as. Facility-wide energy efficiency measures , such as improved combustion measures, and use of pipeline quality natural gas.	50 KG/GJ	BACT-F
4-0327	WASHINGTON PARISH ENERGY CENTER	05/23/2018	6/3/2021	CTG02 NO - Simple-Cycle Combustion Turbine 2 (Normal Opera	2201 MM BTU/hr	quality including as. Facility-wide energy efficiency measures , such as improved combustion measures, and use of pipeline quality natural gas.	50 KG/GJ	BACT-I
-0326	DOSWELL ENERGY CENTER	10/04/2016	6/19/2019	Two (2) GE 7FA simple cycle combustion turbines	1961 MMBTU/HR	Good combustion, maintenance and use of active combustion dynamic monitoring systems.	0	BACT-
0331	CALCASIEU PASS LNG PROJECT	09/21/2018	6/19/2019	Simple Cycle Combustion Turbines (SCCT1 to SCCT3)	927 MM BTU/h	Exclusively combust low carbon fuel gas, good combustion practices, good operation and maintenance practices, and insulation	1426146 T/YR	BACT-I
V-0028 -0851	WAVERLY POWER PLANT RIO BRAVO PIPELINE FACILITY	03/13/2018 12/17/2018	2/20/2019 2/19/2019		167.8 MW 967 MMBTU/HR	Use of natural gas & use of GE 7FA.004 Good combustion practices and use of pipeline quality natural gas.	0 0	BACT-I BACT-I
V-0026 -0735	WAVERLY FACILITY ANTELOPE ELK ENERGY CENTER	01/23/2017 05/20/2015	5/1/2018 4/18/2018	GE Model 7FA Turbine Simple Cycle Turbine & Generator	1571 mmbtu/hr 202 MW	Use of Natural Gas, Selection of GE7FA Energy efficiency, good design & combustion practices	1300 LB/MW-HR 1304 LB CO2/MWHR	BACT-I BACT-I
-0816 -0826	CORPUS CHRISTI LIQUEFACTION MUSTANG STATION	02/14/2017 08/16/2017		Refrigeration compressor turbines Simple Cycle Turbine	40000 HP 162.8 MW	Pipeline quality natural gas and good combustion	1793574 T/YR 120 LB/MMBTU	BACT-I BACT-I
0264	MONTPELIER GENERATING STATION	01/06/2017	11/17/2017	PRATT & amp; TWIN-PAC SIMPLE CYCLE TURBINES	270.9 MMBTU/H	practices NATURAL GAS AS PRIMARY FUEL; GOOD COMBUSTION	118 LB/MMBTU	BACT-
-0824	JACKSON COUNTY GENERATING FACILITY	06/30/2017	11/16/2017	Simple Cycle Turbines	920 MW	PRACTICES energy efficiency designs, practices, and procedures, CT inlet air cooling, periodic CT burner maintenance and tuning, reduction in heat loss, i.e., insulation of the CT, instrumentation and controls	1316 LB/MW HR	BACT-I
-0106	GREENIDGE STATION	09/07/2016	9/28/2017	Turbine - natural gas	107 MW		130.17 LB/MMBTU	BACT-I
/-0113	EDGEWOOD ENERGY LLC	07/09/2013	9/28/2017		0		1300 LB/MWH	BACT-I
-0218	SABIC INNOVATIVE PLASTICS MT. VERNON, LC	12/11/2014	7/12/2017	COMBUSTION TURBINE:COGEN	1812 MMBTU/H		937379 T/YR	
-0030	LONESOME CREEK GENERATING STATION	09/16/2013	6/28/2017		412 MMBTU/H	High efficiency turbines	220122 TONS	BACT-I
0819	GAINES COUNTY POWER PLANT	04/28/2017	6/12/2017	Simple Cycle Turbine	227.5 MW	Pipeline quality natural gas; limited hours; good combustion practices	1300 LB/MW H	BACT-I
0-0028	R.M. HESKETT STATION	02/22/2013		Combustion Turbine	986 MMBTU/H		413198 TONS/12 MONTH	BACT-F
0121	INVENERGY NELSON EXPANSION LLC	09/27/2016		Two Simple Cycle Combustion Turbines	190 MW	Turbine-generator design and proper operation	0	BACT-P
-0307	MAGNOLIA LNG FACILITY	03/21/2016	4/28/2017		333 mm btu/hr	good combustion/operating/maintenance practices and fueled by natural gas; use intake air chiller	0	BACT-F
-0316	CAMERON LNG FACILITY	02/17/2017	4/28/2017	Gas turbines (9 units)	1069 mm btu/hr	good combustion practices and fueled by natural gas; Use high thermal efficiency turbines	0	BACT-I
D-0029	PIONEER GENERATING STATION	05/14/2013	11/3/2016	Natural gas-fired turbines	451 MMBTU/H		243147 T/12 MON ROLL TO	TAL BACT-I
-0788	NECHES STATION	03/24/2016		Large Combustion Turbines > 25 MW	232 MW	good combustion practiceS	1341 LB/MW H	BACT-F
(0/00		0 4 /0 7 /0 0 4 6			171 MW		4 4 2 4 1 5 (2 4) 4 (1	BACT-P
X-0794	HILL COUNTY GENERATING FACILITY	04/07/2016	//29/2016	Simple cycle turbine	1/1 1/1/		1434 LB/MWH	DACI-P

#### Table C-5. RBLC GHG Summary for Large Combustion Turbines, Simple Cycle, Natural Gas-Fired

		Permit	Date Last					
RBLCID	Facility Name	Issuance Date	Updated	Process Name	Throughput	Control Method Description	Emission Limit	BASIS
MD-0043	PERRYMAN GENERATING STATION	07/01/2014	7/25/2016	(2) 60-MW SIMPLE CYCLE COMBUSTION TURBINES, FIRING NAT	120 MW	USE OF NATURAL GAS. ENERGY EFFICIENCY DESIGN - USE OF INLET FOGGING/WET COMPRESSION, INSULATION BLANKETS TO REDUCE HEAT LOSS, AND FUEL GAS PREHEATING.	1394 LB CO2E/MWH	BACT-PSD
MD-0043	PERRYMAN GENERATING STATION	07/01/2014	7/25/2016	(2) 60-MEGAWATT SIMPLE CYLCE COMBUSTION TURBINE, FIRIN	120 MW	LIMITED USE OF ULSD. ENERGY EFFICIENCY DESIGN - USE OF INLET FOGGING/WET COMPRESSION, INSULATION BLANKETS TO REDUCE HEAT LOSS, AND FUEL GAS PREHEATING	1741 LB/MWH CO2E	BACT-PSD
TX-0761	SR BERTRON ELECTRIC GENERATING STATION	09/15/2015	7/6/2016	Simple cycle turbines greater than 25 megawatts (MW) firing na	359 MW		1232 LB /MW H	BACT-PSD
TX-0762	CEDAR BAYOU ELECTRIC GENERATING STATION	09/15/2015	7/6/2016	Simple cycle turbines greater than 25 megawatts (MW)	359 MW		1232 LB CO2/MWH	BACT-PSD
TX-0780	VAN ALSTYNE ENERGY CENTER	01/13/2016	7/6/2016	Simple Cycle Turbine	183 mw		1461 LB/MWH	BACT-PSD
FL-0354	LAUDERDALE PLANT	08/25/2015	7/6/2016	Five 200-MW combustion turbines	2100 MMBtu/hr (approx)	Use of natural gas with restricted use of ULSD as backup fuel	1372 LB/MWH	BACT-PSD
TX-0757	INDECK WHARTON ENERGY CENTER	05/12/2014	7/6/2016	Simple Cycle Combustion Turbine, GE 7FA.05	0		1276 LB CO2/MWHR (GR	OSS BACT-PSD
TX-0757	INDECK WHARTON ENERGY CENTER	05/12/2014	7/6/2016	Simple Cycle Combustion Turbine, SGT-5000F(5)	0		1337 LB CO2/MWHR (GR	OSS BACT-PSD
TX-0758	ECTOR COUNTY ENERGY CENTER	08/01/2014	7/6/2016	Simple Cycle Combustion Turbine, GE 7FA.03	11707 Btu/kWh (HHV)		1393 LB CO2/MWHR (GR	OSS BACT-PSD
TX-0758	ECTOR COUNTY ENERGY CENTER	08/01/2014	7/6/2016	Simple Cycle Combustion Turbine-MSS	0		21 TON CO2E/EVENT	BACT-PSD
TX-0753	GUADALUPE GENERATING STATION	12/02/2014	7/6/2016	Simple Cycle Combustion Turbine Generator	10673 Btu/kWh		1293.3 LB CO2/MWHR (GR	OSS BACT-PSD
TX-0753	GUADALUPE GENERATING STATION	12/02/2014	7/6/2016	Simple Cycle Combustion Turbine Generator	10673 Btu/kWh		1293.3 LB CO2/MWHR (GR	OSS BACT-PSD
TX-0771	SHAWNEE ENERGY CENTER	11/10/2015	7/6/2016	Simple cycle turbines greater than 25 megawatts (MW)	230 MW		1398 LB/MWH	BACT-PSD
TX-0775	CLEAR SPRINGS ENERGY CENTER (CSEC)	11/13/2015	7/6/2016	Simple Cycle Turbine	183 MW	Low carbon fuel, good combustion, efficient combined cycle design	1461 LB/MW H	BACT-PSD
TX-0778	UNION VALLEY ENERGY CENTER	12/16/2015	7/6/2016	Simple Cycle Turbine	183 MW		1461 LB/MW H	BACT-PSD
FL-0355	FORT MYERS PLANT	09/10/2015	7/6/2016	Combustion Turbines	2262.4 MMBtu/hr gas	Use of low-emitting fuel and efficient turbine	1374 LB CO2E / MWH	BACT-PSD
TX-0679	CORPUS CHRISTI LIQUEFACTION PLANT	02/27/2015	5/9/2016	Refrigeration Compressor Turbines	40000 hp	install efficient turbines, follow the turbine manufacturer候s emission-related written instructions for maintenance activities including prescribed maintenance intervals to assure good combustion and efficient operation. Compressors shall be inspected and maintained according to a written maintenance plan to maintain efficiency.	146754 TPY	BACT-PSD
TX-0679	CORPUS CHRISTI LIQUEFACTION PLANT	02/27/2015	5/9/2016	Refrigeration Compressor Turbine	40000 hp	install efficient turbines, follow the turbine manufacturer候s emission-related written instructions for maintenace activities including prescribed maintenance intervals to assure good combustion and efficient operation. Compressors shall be inspected and maintained according to a written maintenance plan to maintain efficiency.	146754 TPY	BACT-PSD
OR-0050	TROUTDALE ENERGY CENTER, LLC	03/05/2014	5/5/2016	GE LMS-100 combustion turbines, simple cycle with water injec	1690 MMBTU/H	Thermal efficiency Clean fuels	1707 LB OF CO2 /GROSS	
IN-0173	MIDWEST FERTILIZER CORPORATION	06/04/2014	5/4/2016	STARTUP HEATER	92.5 MMBTU/H	GOOD COMBUSTION PRACTICES AND PROPER DESIGN, USE NATURAL GAS	59.61 T/MMCF	BACT-PSD
CO-0075	PUEBLO AIRPORT GENERATING STATION	05/30/2014	2/19/2016	Turbine - simple cycle gas	375 MMBTU/H	Good Combustion Control	1600 LB/MW H GROSS	BACT-PSD

#### Table C-6. RBLC SO<sub>2</sub> Summary for Large Combustion Turbines, Simple Cycle, Natural Gas-Fired

		Dames it	Date Last					
RBLCID	Facility Name	Permit Issuance Date		Process Name	Throughput	Control Method Description	Emission Limit	BASIS
KS-0036	WESTAR ENERGY - EMPORIA ENERGY CENTER	03/18/2013	3/1/2023	GE LM6000PC SPRINT Simple cycle combustion turbine	405.3 MMBTU/hr	fire only pipeline quality natural gas	2 GR S/100 SCF	BACT-PSD
KS-0036	WESTAR ENERGY - EMPORIA ENERGY CENTER	03/18/2013	3/1/2023	GE 7FA Simple Cycle Combustion Turbine	1780 MMBTU/HR	fire only pipeline quality natural gas	2 GR S/100 SCF	BACT-PSD
AK-0085	GAS TREATMENT PLANT	08/13/2020	8/16/2022	Six (6) Simple Cycle Gas-Turbines (Power Generation)	386 MMBtu/hr	Good combustion practices and clean burning fuel low sulfur natural gas	96 PPMV SULFUR IN FU	IEL BACT-PSD
AK-0088	LIQUEFACTION PLANT	07/07/2022	8/16/2022	Six Simle Cycle Gas-Fired Turbines	1113 MMBtu/hr	pipeline quality natural gas and good combustion practices	16 PPMV SULFUR IN FU	IEL BACT-PSD
TX-0933	NACERO PENWELL FACILITY	11/17/2021	3/8/2022	TURBINE	0	Low sulfur content in fuel	0	BACT-PSD
LA-0349	DRIFTWOOD LNG FACILITY	07/10/2018	8/6/2021	Compressor Turbines (20)	540 mm btu/hr	Good Combustion Practices and Use of low sulfur facility fuel gas	0	BACT-PSD
LA-0331	CALCASIEU PASS LNG PROJECT	09/21/2018	6/19/2019	Simple Cycle Combustion Turbines (SCCT1 to SCCT3)	927 MM BTU/h	Exclusive Combustion of low sulfur fuel - Fuel sulfur content <4 ppm, proper engineering practices.	4 PPMV	BACT-PSD
NJ-0086	BAYONNNE ENERGY CENTER	08/26/2016	4/17/2018	Simple Cycle Stationary Turbines firing Natural gas	2143980 MMBTU/YR	Use of natural gas a low sulfur fuel	0.77 LB/H	OTHER CASE
IN-0261	VERMILLION GENERATING STATION	02/28/2017	8/9/2017	SIMPLE CYCLE, NATURAL GAS FIRED COMBUSTION TURBINES	80 MW	GOOD COMBUSTION PRACTICES	0.6 LB/H	BACT-PSD
TX-0819	GAINES COUNTY POWER PLANT	04/28/2017	6/12/2017	Simple Cycle Turbine	227.5 MW	Pipeline quality natural gas; limited hours; good combustion practices	1.54 GR/100 DSCF	BACT-PSD
TX-0788	NECHES STATION	03/24/2016	7/29/2016	Large Combustion Turbines > 25 MW	232 MW	good combustion practices, low sulfur fuel	1 GR/100 SCF	BACT-PSD
FL-0354	LAUDERDALE PLANT	08/25/2015	7/6/2016	Five 200-MW combustion turbines	2100 MMBtu/hr (approx)	Limitation on S in fuel	2 GR. S / 100 SCF	BACT-PSD
FL-0355	FORT MYERS PLANT	09/10/2015	7/6/2016	Combustion Turbines	2262.4 MMBtu/hr gas	Use of clean fuels	2 GR S / 100 SCF GAS	BACT-PSD
TX-0695	ECTOR COUNTY ENERGY CENTER	08/01/2014	5/9/2016	(2) combustion turbines	180 MW		1 GR/100 DSCF	BACT-PSD
TX-0701	ECTOR COUNTY ENERGY CENTER	05/13/2013	5/9/2016	Simple Cycle Combustion Turbines	180 MW	Firing pipeline quality natural gas and good combustion practices.	0	BACT-PSD
TX-0672	CORPUS CHRISTI LIQUEFACTION PLANT	09/12/2014	5/5/2016	Refrigeration compressor turbines	40000 hp		0.31 LB/H	BACT-PSD

#### Table C-7. RBLC H<sub>2</sub>SO<sub>4</sub> Summary for Large Combustion Turbines, Simple Cycle, Natural Gas-Fired

		Permit	Date Last					
RBLCID	Facility Name	Issuance Date	Updated	Process Name	Throughput	Control Method Description	<b>Emission Limit</b>	BASIS
KS-0036	WESTAR ENERGY - EMPORIA ENERGY CENTER	03/18/2013	3/1/2023	GE LM6000PC SPRINT Simple cycle combustion turbine	405.3 MMBTU/hr	fire only pipeline quality natural gas	2 GRS/100 SCF	BACT-PSD
KS-0036	WESTAR ENERGY - EMPORIA ENERGY CENTER	03/18/2013	3/1/2023	GE 7FA Simple Cycle Combustion Turbine	1780 MMBTU/HR	dry low NOx burners and fire only pipeline natural gas	2 GR S/100 SCF	BACT-PSD
TX-0788	NECHES STATION	03/24/2016	7/29/2016	Large Combustion Turbines > 25 MW	232 MW	good combustion practices, low sulfur fuel	1 GR/100 SCF	BACT-PSD
FL-0354	LAUDERDALE PLANT	08/25/2015	7/6/2016	Five 200-MW combustion turbines	2100 MMBtu/hr (approx)	Limitation on S in fuel	2 GR. S / 100 SCF	BACT-PSD
OR-0050	TROUTDALE ENERGY CENTER, LLC	03/05/2014	5/5/2016	GE LMS-100 combustion turbines, simple cycle with water inje	1690 MMBTU/H	Utilize only natural gas or ULSD fuel.	0	BACT-PSD

#### Table C-8. RBLC NO<sub>X</sub> Summary for Large Combustion Turbines, Simple Cycle, Liquid Fuel-Fired

		Permit D	ate Last				
RBLCID	Facility Name	Issuance Date U	pdated Process Name	Throughput	Control Method Description	Emission Limit	BASIS
NJ-0086	BAYONNNE ENERGY CENTER	08/26/2016	4/17/2018 Simple Cycle Stationary Turbines firing Ultra Low Sulfur Distillat	720 H/YR	SCR and water injection	5 PPMVD@15% O2	LAER
*PA-0316	RENOVO ENERGY CENTER, LLC	01/26/2018	3/26/2019 Combustion Turbine firing ULSD	0	SCR	4 PPMDV	LAER
TX-0794	HILL COUNTY GENERATING FACILITY	04/07/2016	7/29/2016 Simple Cycle Turbine	171 MW	DLN, WATER INJECTION	42 PPMVD @ 15% O2	BACT-PSD
TX-0699	TURBINE OVERHAUL CENTER	12/16/2014	5/9/2016 Turbine test cell	0	good combustion practices	0	LAER

#### Table C-9. RBLC CO Summary for Large Combustion Turbines, Simple Cycle, Liquid Fuel-Fired

		Permit D	ate Last				
RBLCID	Facility Name	Issuance Date L	pdated Process Name	Throughput	Control Method Description	Emission Limit	BASIS
NJ-0086	BAYONNNE ENERGY CENTER	08/26/2016	4/17/2018 Simple Cycle Stationary Turbines firing Ultra Low Sulfur Distillat	720 H/YR	Oxidation Catalyst	5 PPMVD@15%O2	OTHER CASE
TX-0794	HILL COUNTY GENERATING FACILITY	04/07/2016	7/29/2016 Simple Cycle Turbine	171 MW	combustor designed for complete combustion and theref	20 PPMVD @ 15% O2	BACT-PSD

#### Table C-10. RBLC VOC Summary for Large Combustion Turbines, Simple Cycle, Liquid Fuel-Fired

		Permit Da	te Last				
RBLCID	Facility Name	Issuance Date Up	dated Process Name	Throughput	Control Method Description	Emission Limit	BASIS
NJ-0086	BAYONNNE ENERGY CENTER	08/26/2016	4/17/2018 Simple Cycle Stationary Turbines firing Ultra Low Sulfur Distillat	720 H/YR	Oxidation catalyst	4.5 PPMVD@15%O2	LAER
*PA-0316	RENOVO ENERGY CENTER, LLC	01/26/2018	3/26/2019 Combustion Turbine firing ULSD	0		2 PPMDV	LAER
TX-0794	HILL COUNTY GENERATING FACILITY	04/07/2016	7/29/2016 Simple Cycle Turbine	171 MW	combustor designed for complete combustion and theref	3.3 LB/H	BACT-PSD

#### Table C-11. RBLC PM Summary for Large Combustion Turbines, Simple Cycle, Liquid Fuel-Fired

	Permit	Date Last				
RBLCID Facility Name	Issuance Date	Updated Process Name	Throughput	Control Method Description	Emission Limit	BASIS
PM - Filterable						
NJ-0086 BAYONNNE ENERGY CENTER	08/26/2016	4/17/2018 Simple Cycle Stationary Turbines firing Ultra Low Sulfur Distillat	720 H/YR	Use of ULSD, a clean burning fuel	14 LB/H	OTHER CASE
PM <sub>10</sub> - Total						
NJ-0086 BAYONNNE ENERGY CENTER	08/26/2016	4/17/2018 Simple Cycle Stationary Turbines firing Ultra Low Sulfur Distillat	720 H/YR	Use of ULSD a clean burning fuel	14 LB/H	OTHER CASE
TX-0794 HILL COUNTY GENERATING FACILITY	04/07/2016	7/29/2016 Simple Cycle Turbine	171 MW	combustor designed for complete combustion and theref	9.8 LB/H	BACT-PSD
PM <sub>2.5</sub> - Total						
NJ-0086 BAYONNNE ENERGY CENTER	08/26/2016	4/17/2018 Simple Cycle Stationary Turbines firing Ultra Low Sulfur Distillat	720 H/YR	Use of ULSD, a clean burning fuel	14 LB/H	OTHER CASE
TX-0794 HILL COUNTY GENERATING FACILITY	04/07/2016	7/29/2016 Simple Cycle Turbine	171 MW	combustor designed for complete combustion and theref	9.8 LB/H	BACT-PSD

#### Table C-12. RBLC GHG Summary for Large Combustion Turbines, Simple Cycle, Liquid Fuel-Fired

		Permit	Date Last				
RBLCID	Facility Name	Issuance Date	Updated Process Name	Throughput	Control Method Description	Emission Limit	BASIS
TX-0794	HILL COUNTY GENERATING FACILITY	04/07/2016	7/29/2016 Simple Cycle Turbine	171 MW		1434 LB/MWH	BACT-PSD

#### Table C-13. RBLC SO $_2$ Summary for Large Combustion Turbines, Simple Cycle, Liquid Fuel-Fired

		Permit	Date Last				
RBLCID	Facility Name	Issuance Date	Updated Process Name	Throughput	Control Method Description	Emission Limit	BASIS
NJ-0086	BAYONNNE ENERGY CENTER	08/26/2016	4/17/2018 Simple Cycle Stationary Turbines firing Ultra Low Sulfur Distillat	720 H/YR	Use of ULSD a very low sulfur fuel	0.8 LB/H	OTHER CASE

RBLCID	Facility Name	Permit Issuance Date	Date Last Updated	Process Name	Throughput	Control Method Description	Emission Limit EMISSION LIMIT	1 AVBASIS
*MI-0454	LBWL-ERICKSON STATION	12/20/2022	5/15/2023	EUEMGD	4474.2 KW	Good combustion practices and will be NSPS compliant.	6.4 G/KW-H	BACT-PSD
		,,	-,,					
OH-0387	INTEL OHIO SITE	09/20/2022	4/25/2023	5,051 bhp (3,768 kWm) Diesel-Fired Emergency Generators: P001 through P	5051 HP	Certified to meet Tier 2 standards and good combustion practices	6.4 G/KW-H	BACT-PSD
MI-0452	MEC SOUTH, LLC	06/23/2022	4/25/2023	EUEMENGINE (South Plant): Emergency engine	1341 HP	Good Combustion Practices and meeting NSPS Subpart IIII requirements	6.4 G/KW-H	BACT-PSD
MI-0451	MEC NORTH, LLC	06/23/2022	4/25/2023	EUEMENGINE (North Plant): Emergency engine	1341 HP	Good combustion practices and meeting NSPS Subpart IIII requirements.	6.4 G/KW-H	BACT-PSD
AR-0177	NUCOR STEEL ARKANSAS	11/21/2022	4/25/2023	SN-230 Galvanizing Line No, 2 Emergency Generator	3634 Horsepower		5.6 G/KW-HR	BACT-PSD
TX-0955	INEOS OLIGOMERS CHOCOLATE BAYOU	03/14/2023	4/12/2023	Engine Emergency Generator	0	TIER III ENGINE, OPERATIONS LIMITED TO 100 HRS/YR	3.9 G/HP HR	LAER
*IN-0359	NUCOR STEEL	03/30/2023	4/11/2023	Emergency Generator (CC-GEN1)	3000 Horsepower	certified engine	4.8 G/HP-HR	BACT-PSD
*LA-0391	MAGNOLIA POWER GENERATING STATION UNIT 1	06/03/2022	3/6/2023	Emergency Diesel Generator Engine	2937 hp	Compliance with 40 CFR 60 Subpart IIII, good combustion practices, and use of ultra-low sulfur diesel fuel.	4.8 G/HP-HR	BACT-PSD
KS-0036	WESTAR ENERGY - EMPORIA ENERGY CENTER	03/18/2013	3/1/2023	Caterpillar C18DITA Diesel Engine Generator	900 BHP	utilize efficient combustion/design technology	14 LB/HR	BACT-PSD
IL-0133	LINCOLN LAND ENERGY CENTER	07/29/2022	12/6/2022	Emergency Engines	1250 kW		6.4 GRAMS	BACT-PSD
*NE-0064	NORFOLK CRUSH, LLC	11/21/2022	11/30/2022	Emergency Fire Water Pump Engine 1	510 hp		2.38 G/HP-HR	BACT-PSD
WI-0300	NEMADJI TRAIL ENERGY CENTER	09/01/2020	9/16/2022	Emergency Diesel Generator (P07)	1490 HP	Operation limited to 500 hours/year and operate and maintain according to the manufacturer's recommendations.	4.8 G/HP-H	BACT-PSD
AK-0088	LIQUEFACTION PLANT	07/07/2022	8/16/2022	Diesel Fire Pump Engine	27.9 Gal/hr	Good Combustion Practices; Limited Operation; 40 CFR 60 Subpart IIII	3.6 G/HP-HR	BACT-PSD
MI-0448	GRAYLING PARTICLEBOARD	12/18/2020	8/16/2022	Emergency diesel generator engine (EUEMRGRICE1 in FGRICE)	500 h/yr	Certified engines, limited operating hours	21.2 LB/H	BACT-PSD
MI-0448	GRAYLING PARTICLEBOARD	12/18/2020	8/16/2022	Emergency diesel generator engine (EUEMRGRICE2 in FGRICE)	500 h/yr	Certified Engines, Limited Operating Hours	4.4 LB/H	BACT-PSD
MI-0448	GRAYLING PARTICLEBOARD	12/18/2020	8/16/2022	Diesel fire pump engine (EUFIREPUMP in FGRICE)	500 h/yr	Certified Engines, Limited Operating Hours	3.53 LB/H	BACT-PSD
IN-0324	MIDWEST FERTILIZER COMPANY LLC	05/06/2022	8/16/2022	emergency generator EU 014a	3600 HP		4.42 G/HP-HR	BACT-PSD
IN-0324	MIDWEST FERTILIZER COMPANY LLC	05/06/2022	8/16/2022		500 HP		2.83 G/HP-HR	BACT-PSD
AK-0085	GAS TREATMENT PLANT	08/13/2020	8/16/2022	-	186.6 gph	Good combustion practices, limit operation to 500 hours per year.		BACT-PSD
*WV-0033	MAIDSVILLE	01/05/2022	6/28/2022	Emergency Generator	2100 hp	Combustion Control (retarded timing and/or lean burn)	24.6 LB/HR	BACT-PSD
*WV-0033	MAIDSVILLE	01/05/2022	6/28/2022	Fire Water Pump	240 bhp	Combustion control (retarded timing and/or lean burn)	1.59 LB/HR	BACT-PSD
TX-0933	NACERO PENWELL FACILITY	11/17/2021	3/8/2022	Emergency Generators	0	limited to 100 hours per year of non-emergency operation. EPA Tier 2 (40 CFR § 1039.101) exhaust emission standards	0	BACT-PSD
WI-0286	SIO INTERNATIONAL WISCONSIN, INCENERGY PLANT	04/24/2018	3/8/2022	P42 -Diesel Fired Emergency Generator	0	Good Combustion Practices, The Use of an Engine Turbocharger and Aftercooler.	5.36 G/KWH	BACT-PSD
WI-0284	SIO INTERNATIONAL WISCONSIN, INCENERGY PLANT	04/24/2018	3/8/2022	Diesel-Fired Emergency Generators	0	The Use of Ultra-Low Sulfur Fuel and Good Combustion Practices	5.36 G/KWH	BACT-PSD
LA-0383	LAKE CHARLES LNG EXPORT TERMINAL	09/03/2020	3/4/2022	Emergency Engines (EQT0011 - EQT0016)	0	Comply with 40 CFR 60 Subpart III	0	BACT-PSD
OH-0383	PETMIN USA INCORPORATED	07/17/2020	3/4/2022	Diesel-fired emergency fire pumps (2) (P009 and P010)	3131 HP	Tier IV NSPS standards certified by engine manufacturer.	0	BACT-PSD
LA-0382	BIG LAKE FUELS METHANOL PLANT	04/25/2019	3/4/2022	Emergency Engines (EQT0014 - EQT0017)	0	Comply with standards of 40 CFR 60 Subpart IIII	0	BACT-PSD
FL-0371	SHADY HILLS COMBINED CYCLE FACILITY	06/07/2021	3/4/2022	1,500 kW Emergency Diesel Generator	14.82 MMBtu/hour		6.4 G/KW-HOUR	BACT-PSD
AL-0328	PLANT BARRY	11/09/2020	3/4/2022	Diesel Emergency Engines	0		3 GR/BHP-HR	BACT-PSD
LA-0379	SHINTECH PLAQUEMINES PLANT 1	05/04/2021	3/4/2022	VCM Unit Emergency Generator A	1389 hp	Good combustion practices/gaseous fuel burning.	6.9 G/HP-HR	BACT-PSD
LA-0379	SHINTECH PLAQUEMINES PLANT 1	05/04/2021	3/4/2022	C/A Emergency Generator B	1800 hp	Good combustion practices/gaseous fuel burning.	6.9 G/HP-HR	BACT-PSD
FL-0367	SHADY HILLS COMBINED CYCLE FACILITY	07/27/2018	3/4/2022	1,500 kW Emergency Diesel Generator	14.82 MMBtu/hour	Operate and maintain the engine according to the manufacturer's written instructions	6.4 G/KW-HOUR	BACT-PSD
TX-0904	MOTIVA POLYETHYLENE MANUFACTURING COMPLEX	09/09/2020	12/1/2021	EMERGENCY GENERATOR	0	100 HOURS OPERATIONS, Tier 4 exhaust emission standards specified in 40 CFR ŧ 1039.101	0	BACT-PSD
TX-0905	DIAMOND GREEN DIESEL PORT ARTHUR FACILITY	09/16/2020	9/10/2021	EMERGENCY GENERATOR	0	limited to 100 hours per year of non-emergency operation	0	BACT-PSD
LA-0364	FG LA COMPLEX	01/06/2020	8/9/2021	Emergency Generator Diesel Engines	550 hp	Compliance with the limitations imposed by 40 CFR 63 Subpart III and operating the engine in accordance with the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.	0	BACT-PSD
LA-0364	FG LA COMPLEX	01/06/2020	8/9/2021	Emergency Fire Water Pumps	550 hp	Compliance with the limitations imposed by 40 CFR 63 Subpart III and operating the engine in accordance with the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.	0	BACT-PSD
MI-0442 MI-0441	THOMAS TOWNSHIP ENERGY, LLC LBWLERICKSON STATION	08/21/2019 12/21/2018	8/9/2021 8/9/2021	FGEMENGINE EUEMGD1A 1500 HP diesel fueled emergency engine	1100 KW 1500 HP	Good combustion practices and will be NSPS compliant.	5.3 G/HP-H 6.4 G/KW-H	BACT-PSD BACT-PSD
MI-0441	LBWLERICKSON STATION	12/21/2018	8/9/2021	EUEMGD2A 6000 HP diesel fuel fired emergency engine	6000 HP	Good combustion practices and will be NSPS compliant.	6.4 G/KW-H	BACT-PSD
MA-0043	MIT CENTRAL UTILITY PLANT	06/21/2017	8/9/2021	Cold Start Engine	19.04 MMBTU/HR		35.09 LB/HR	OTHER CA
LA-0350	BENTELER STEEL TUBE FACILITY	03/28/2018	8/6/2021	emergency generators (3 units) EQT0039, EQT0040, EQT0041	0	Comply with 40 CFR 60 Subpart IIII	0	BACT-PSD

RBLCID	Facility Name		Date Last Updated	Process Name	Throughput	Control Method Description	Emission Limit EMISSION_LIMIT_1	_A\ BASIS
LA-0346	GULF COAST METHANOL COMPLEX	01/04/2018	8/6/2021	emergency generators (4 units)	13410 hp (each)	Comply with standards of 40 CFR 60 Subpart JJJJ	2 G/BHP-HR	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021	New Pumphouse (XB13) Emergency Generator #1 (EP 08-05)	2922 HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021	Tunnel Furnace Emergency Generator (EP 08-06)	2937 HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021	Caster B Emergency Generator (EP 08-07)	2937 HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021	Air Separation Unit Emergency Generator (EP 08-08)	700 HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0	BACT-PSD
IN-0317	RIVERVIEW ENERGY CORPORATION	06/11/2019	5/26/2021	Emergency generator EU-6006	2800 HP	Tier II diesel engine	6.4 G/KWH	BACT-PSD
IN-0317	RIVERVIEW ENERGY CORPORATION	06/11/2019		Emergency fire pump EU-6008	750 HP	Engine that complies with Table 4 to Subpart IIII of Part	4 G/KWH	BACT-PSD
VA-0332	CHICKAHOMINY POWER LLC	06/24/2019	5/19/2021	Emergency Diesel Generator - 300 kW	500 H/YR	good combustion practices, high efficiency design, and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	4.8 G/HP-H	BACT-PSD
AR-0161	SUN BIO MATERIAL COMPANY	09/23/2019	5/5/2021	Emergency Engines	0	Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	0.4 G/KW-H	BACT-PSD
*LA-0315	G2G PLANT	05/23/2014	4/5/2021	Emergency Diesel Generator 1	5364 HP	Compliance with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	52.58 LB/H	BACT-PSD
*LA-0315	G2G PLANT	05/23/2014	4/5/2021	Emergency Diesel Generator 2	5364 HP	Compliance with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	52.58 LB/H	BACT-PSD
*LA-0315	G2G PLANT	05/23/2014	4/5/2021	Fire Pump Diesel Engine 1	751 HP	Compliance with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	4.6 LB/H	BACT-PSD
*LA-0315	G2G PLANT	05/23/2014	4/5/2021	Fire Pump Diesel Engine 2	751 HP	Compliance with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	4.6 LB/H	BACT-PSD
KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021	EP 10-02 - North Water System Emergency Generator	2922 HP	This EP is required to have a Good Combustion and	4.77 G/HP-HR	BACT-PSD
KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021	EP 10-03 - South Water System Emergency Generator	2922 HP	Operating Practices (GCOP) Plan. This EP is required to have a Good Combustion and	4.77 G/HP-HR	BACT-PSD
KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021	EP 10-04 - Emergency Fire Water Pump	920 HP	Operating Practices (GCOP) Plan. This EP is required to have a Good Combustion and	4.77 G/HP-HR	BACT-PSD
KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021	EP 10-07 - Air Separation Plant Emergency Generator	700 HP	Operating Practices (GCOP) Plan. This EP is required to have a Good Combustion and	4.77 G/HP-HR	BACT-PSD
KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021	EP 10-01 - Caster Emergency Generator	2922 HP	Operating Practices (GCOP) Plan. This EP is required to have a Good Combustion and	4.77 G/HP-HR	BACT-PSD
*MI-0445	INDECK NILES, LLC	11/26/2019	12/23/2020	EUEMENGINE (diesel fuel emergency engine)	22.68 MMBTU/H	Operating Practices (GCOP) Plan. Good Combustion Practices and meeting NSPS Subpart	6.4 G/KW-H	BACT-PSD
TX-0888	ORANGE POLYETHYLENE PLANT	04/23/2020	11/12/2020	EMERGENCY GENERATORS & amp; FIRE WATER PUMP ENGINES	0	IIII requirements well-designed and properly maintained engines and each limited to 100 hours per year of non-emergency	0	BACT-PSD
TX-0879	MOTIVA PORT ARTHUR TERMINAL	02/19/2020	11/12/2020	Emergency Firewater Engine	0	use. Meeting the requirements of 40 CFR Part 60, Subpart IIII Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs/yr of non- emergency operation. Have a non-resettable runtime meter.	0	BACT-PSD
TX-0876	PORT ARTHUR ETHANE CRACKER UNIT	02/06/2020	11/12/2020	Emergency generator	0	Tier 4 exhaust emission standards specified in 40 CFR § 1039.101, limited to 100 hours per year of non-	0	BACT-PSD
TX-0876	PORT ARTHUR ETHANE CRACKER UNIT	02/06/2020	11/12/2020	Emergency firewater pumps	0	emergency operation Tier 3 exhaust emission standards specified in 40 CFR ŧ 89.112, limited to 100 hours per year of non-emergency operation	0	BACT-PSD
AR-0163	BIG RIVER STEEL LLC	06/09/2019	11/10/2020	Emergency Engines	0	Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	4.86 G/KW-HR	BACT-PSD
MD-0042	WILDCAT POINT GENERATION FACILITY	04/08/2014	8/12/2020	EMERGENCY GENERATOR 1	2250 KW	LIMITED OPERATING HOURS, USE OF ULTRA- LOW SULFUR FUEL AND GOOD COMBUSTION PRACTICES	4.8 G/HP-H	LAER
*IA-0312	ST. JAMES METHANOL PLANT	06/30/2017	5/1/2020	DFP1-13 - Diesel Fire Pump Engine (EQT0013)	650 horsepower	Compliance with NSPS Subpart IIII	6.6 LB/HR	BACT-PSD
*LA-0312	ST. JAMES METHANOL PLANT	06/30/2017	5/1/2020	DEG1-13 - Diesel Fired Emergency Generator Engine (EQT0012)	1474 horsepower	Compliance with NSPS Subpart IIII	19.23 LB/HR	BACT-PSD
IL-0130	JACKSON ENERGY CENTER	12/31/2018	4/16/2020	Emergency Engine	1500 kW		6.4 G/KW-HR	LAER
AK-0084	DONLIN GOLD PROJECT	06/30/2017	4/16/2020	Black Start and Emergency Internal Cumbustion Engines	1500 kWe	Good Combustion Practices	8 G/KW-HR	BACT-PSD
AK-0084	DONLIN GOLD PROJECT	06/30/2017	4/16/2020	Twelve (12) Large ULSD/Natural Gas-Fired Internal Combustion Engines	143.5 MMBtu/hr	Selective Catalytic Reduction (SCR) and Good Combustion Practices	0.53 G/KW-HR (ULSD)	BACT-PSD
PA-0291	HICKORY RUN ENERGY STATION	04/23/2013	3/2/2020	EMERGENCY GENERATOR	7.8 MMBTU/H		9.89 LB/H	OTHER CAS
TX-0728	PEONY CHEMICAL MANUFACTURING FACILITY	04/01/2015	1/31/2020	Emergency Diesel Generator	1500 hp	Minimized hours of operations Tier II engine	0.0218 G/HP HR	LAER
*AL-0318	TALLADEGA SAWMILL	12/18/2017	10/11/2019	250 Hp Emergency CI, Diesel-fired RICE	0	-	0	N/A
OH-0379	PETMIN USA INCORPORATED	02/06/2019	6/19/2019	Emergency Generators (P005 and P006)	3131 HP	Tier IV engine Tier IV NSPS standards certified by engine manufacturer.	3.45 LB/H	BACT-PSD
OH-0378	PTTGCA PETROCHEMICAL COMPLEX	12/21/2018	6/19/2019	Emergency Diesel-fired Generator Engine (P007)	3353 HP	certified to the meet the emissions standards in Table 4 of 40 CFR Part 60, Subpart III, shall employ good combustion practices per the manufacturer's operating manual	37.41 LB/H	BACT-PSD

RBLCID	Facility Name	Permit Issuance Date	Date Last Updated	Process Name	Throughput	Control Method Description	Emission Limit EMISSION_LIMIT_	1 AVBASIS
OH-0378	PTTGCA PETROCHEMICAL COMPLEX	12/21/2018		1,000 kW Emergency Generators (P008 - P010)	1341 HP	certified to the meet the emissions standards in Table 4	14.96 LB/H	BACT-PSD
		,,	-,,	-,,,		of 40 CFR Part 60, Subpart IIII, shall employ good combustion practices per the manufacturer's operating manual	,	
OH-0377	HARRISON POWER	04/19/2018	6/19/2019	Emergency Diesel Generator (P003)	1860 HP	Good combustion practices (ULSD) and compliance with 40 CFR Part 60. Subpart IIII	19.68 LB/H	BACT-PSD
OH-0376	IRONUNITS LLC - TOLEDO HBI	02/09/2018	6/19/2019	Emergency diesel-fired generator (P007)	2682 HP	Comply with NSPS 40 CFR 60 Subpart III	28.2 LB/H	BACT-PSD
OH-0375	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	11/07/2017	6/19/2019	Emergency Diesel Generator Engine (P001)	2206 HP	Good combustion design	24.71 LB/H	BACT-PSD
OH-0375	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	11/07/2017		Emergency Diesel Fire Pump Engine (P002)	700 HP	Good combustion design	4.97 LB/H	BACT-PSD
OH-0374	GUERNSEY POWER STATION LLC	10/23/2017		Emergency Generators (2 identical, P004 and P005)	2206 HP	Certified to the meet the emissions standards in 40 CFR	23.21 LB/H	BACT-PSD
011-0374	GUERIGET FOWER STATION LEC	10/23/2017	0/19/2019	Linergency Generators (2 luenicula, roo4 and rood)	2200 114	89.112 and 89.113 pursuant to 40 CFR 60.4205(b) and 60.4202(a)(2). Good combustion practices per the manufacturer候s operating manual.	23.21 (B)11	BACI-F3D
OH-0372	OREGON ENERGY CENTER	09/27/2017	6/19/2019	Emergency generator (P003)	1529 HP	State-of-the-art combustion design	16.1 LB/H	BACT-PSD
OH-0370	TRUMBULL ENERGY CENTER	09/07/2017	6/19/2019	Emergency generator (P003)	1529 HP	State-of-the-art combustion design	16.07 LB/H	BACT-PSD
OH-0368	PALLAS NITROGEN LLC	04/19/2017	6/19/2019	Emergency Generator (P009)	5000 HP	good combustion control and operating practices and	5.5 LB/H	BACT-PSD
						engines designed to meet the stands of 40 CFR Part 60, Subpart IIII		
OH-0367	SOUTH FIELD ENERGY LLC	09/23/2016		Emergency generator (P003)	2947 HP	State-of-the-art combustion design	27.18 LB/H	BACT-PSD
OH-0366	CLEAN ENERGY FUTURE - LORDSTOWN, LLC	08/25/2015	6/19/2019		2346 HP	State-of-the-art combustion design	21.6 LB/H	BACT-PSD
LA-0331	CALCASIEU PASS LNG PROJECT	09/21/2018	6/19/2019	Firewater Pumps	634 kW	Good Combustion and Operating Practices.	3.1 G/HP-H	BACT-PSD
LA-0331	CALCASIEU PASS LNG PROJECT	09/21/2018	6/19/2019	Large Emergency Engines (>50kW)	5364 HP	Good Combustion and Operating Practices	5.6 G/KW-H	BACT-PSD
VA-0328	C4GT, LLC	04/26/2018	6/19/2019	Emergency Diesel GEN	500 H/YR	good combustion practices and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	4.8 G/HP H	BACT-PSD
VA-0325	GREENSVILLE POWER STATION	06/17/2016	6/19/2019	DIESEL-FIRED EMERGENCY GENERATOR 3000 kW (1)	0	Good Combustion Practices/Maintenance	6.4 G/KW	N/A
OH-0363	NTE OHIO, LLC	11/05/2014	4/1/2019	Emergency generator (P002)	1100 KW	Emergency operation only, < 500 hours/year each for maintenance checks and readiness testing designed to meet NSPS Subpart III	29.01 LB/H	BACT-PSD
OH-0360	CARROLL COUNTY ENERGY	11/05/2013	4/1/2019	Emergency generator (P003)	1112 KW	Purchased certified to the standards in NSPS Subpart IIII	13.74 LB/H	BACT-PSD
TX-0671	PROJECT JUMBO	12/01/2014	3/6/2019	Engines	0	Each emergency generator's emission factor is based on EPA's Tier 2 standards at 40CFR89.112 for NOx	5.43 G/KW-H	BACT-PSD
IL-0129	CPV THREE RIVERS ENERGY CENTER	07/30/2018	2/19/2019	Emergency Engines	0		0	LAER
MI-0435	BELLE RIVER COMBINED CYCLE POWER PLANT	07/16/2018	2/19/2019	EUEMENGINE: Emergency engine	2 MW	State of the art combustion design.	6.4 G/KW-H	BACT-PSD
MI-0434	ELAT ROCK ASSEMBLY PLANT	03/22/2018	2/19/2019	EUENGINE01 through EUENGINE08	3633 BHP	Good combustion practices.	6.4 G/KW-H	BACT-PSD
MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	06/29/2018	2/19/2019	EUEMENGINE (North Plant): Emergency Engine	1341 HP	Good combustion practices and meeting NSPS Subpart IIII requirements.	6.4 G/KW-H	BACT-PSD
MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	06/29/2018	2/19/2019		1341 HP	Good combustion practices and meeting NSPS IIII requirements.	6.4 G/KW-H	BACT-PSD
PA-0311	MOXIE FREEDOM GENERATION PLANT	09/01/2015		Emergency Generator	0		4.93 G/HP-HR	LAER
PA-0311	MOXIE FREEDOM GENERATION PLANT	09/01/2015	12/21/2018	Fire Pump Engine	0		3 G/HP-HR	LAER
PA-0309	LACKAWANNA ENERGY CTR/JESSUP	12/23/2015	12/21/2018	2000 kW Emergency Generator	0		5.45 GM/HP-HR	LAER
PA-0310	CPV FAIRVIEW ENERGY CENTER	09/02/2016	12/21/2018	Emergency Generator Engines	0		4.8 G/BHP-HR	LAER
MD-0044	COVE POINT LNG TERMINAL	06/09/2014	5/14/2018	EMERGENCY GENERATOR	1550 HP	GOOD COMBUSTION PRACTICES AND DESIGNED TO ACHIEVE EMISSION LIMIT	4.8 G/HP-H	LAER
LA-0323	MONSANTO LULING PLANT	01/09/2017	5/11/2018	Fire Water Diesel Pump No. 3 Engine	600 hp	Proper operation and limits on hours operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0	BACT-PSD
LA-0323	MONSANTO LULING PLANT	01/09/2017	5/11/2018	Fire Water Diesel Pump No. 4 Engine	600 hp	Proper operation and limits on hours of operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0	BACT-PSD
WV-0027	INWOOD	09/15/2017	5/1/2018	Emergency Generator - ESDG14	900 bhp	Engine Design	4.77 G/HP-HR	BACT-PSD
WV-0027	MOUNDSVILLE COMBINED CYCLE POWER PLANT	11/21/2014	5/1/2018	Emergency Generator - CSDG14	2015.7 HP	Engine Design	4.77 G/HP-HR	BACT-PSD BACT-PSD
NJ-0084	PSEG FOSSIL LLC SEWAREN GENERATING STATION	03/10/2016	4/17/2018		2015.7 HP 44 H/YR	use of ultra low sulfur diesel a clean burning fuel.	42.3 LB/H	LAER
MI-0423	INDECK NILES, LLC	01/04/2017	3/8/2018	Diesel Fired Emergency Generator EUEMENGINE (Diesel fuel emergency engine)	22.68 MMBTU/H	Good combustion practices and meeting NSPS IIII requirements.	6.4 G/KW-H	BACT-PSD
MI-0425	GRAYLING PARTICLEBOARD	05/09/2017	11/15/2017	EUEMRGRICE1 in FGRICE (Emergency diesel generator engine)	500 H/YR	Certified engines, limited operating hours.	21.2 LB/H	BACT-PSD
MI-0425	GRAYLING PARTICLEBOARD	05/09/2017	11/15/2017	EUEMRGRICE2 in FGRICE (Emergency Diesel Generator Engine)	500 H/YR	Certified engines, limited operating hours.	4.4 IB/H	BACT-PSD BACT-PSD
MI-0425	GRAYLING PARTICLEBOARD	05/09/2017		EUFIREPUMP in FGRICE (Diesel fire pump engine)	500 H/YR	Certified engines. Limited operating hours.	3.53 LB/H	BACT-PSD BACT-PSD
NY-0103	CRICKET VALLEY ENERGY CENTER	02/03/2016		Black start generator	3000 KW	Generator equipped with selective catalytic reduction.	2.11 G/BHP-H	LAFR
111-0103		02/03/2010	5/28/2017	diack staft generator	5000 KW	Compliance demonstrated with vendor emission certification and adherence to vendor-specified maintenance recommendations.	2.11 0/01/21	DAEN
IN-0263	MIDWEST FERTILIZER COMPANY LLC	03/23/2017	8/22/2017	EMERGENCY GENERATORS (EU014A AND EU-014B)	3600 HP EACH	GOOD COMBUSTION PRACTICES	4.42 G/HP-H EACH	BACT-PSD
MI-0421	GRAYLING PARTICLEBOARD	08/26/2016	7/20/2017		500 H/YR	Certified engines, limited operating hours.	22.6 LB/H	BACT-PSD
MI-0421	GRAYLING PARTICLEBOARD	08/26/2016	7/20/2017		500 H/YR	Certified engines, limited operating hours.	3.53 LB/H	BACT-PSD BACT-PSD
LA-0318	FLOPAM FACILITY	01/07/2016	4/28/2017	Diesel Engines	0	Complying with 40 CFR 60 Subpart IIII	0	BACT-PSD BACT-PSD
LA-0318 LA-0317	PLOPAM FACILITY METHANEX - GEISMAR METHANOL PLANT	12/22/2016	4/28/2017 4/28/2017	Diesei Engines Emergency Generator Engines (4 units)	0	complying with 40 CFR 60 Subpart IIII complying with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	0	BACT-PSD BACT-PSD
I A-0317	METHANEX - GEISMAR METHANOL PLANT	12/22/2016	4/28/2017	Firewater pump Engines (4 units)	896 hp (each)	complying with 40 CFR 60 Subpart IIII and 40 CFR 63	0	BACT-PSD
LH-0317	WETTONEA - GEDWAR WETTANUL PLANT	12/22/2010	4/20/201/	r newater pump engines (4 units)	oso np (each)	Subpart ZZZZ	U	DACI-PSD

RBLCID	Facility Name	Permit Issuance Date	Date Last Updated	Process Name	Throughput	Control Method Description	Emission Limit EMISSION_LIMIT	_1_A\ BASIS
LA-0316	CAMERON LNG FACILITY	02/17/2017	4/28/2017	emergency generator engines (6 units)	3353 hp	Complying with 40 CFR 60 Subpart IIII	0	BACT-PSE
LA-0313	ST. CHARLES POWER STATION	08/31/2016	4/28/2017	SCPS Emergency Diesel Generator 1	2584 HP	Compliance with NESHAP 40 CFR 63 Subpart ZZZZ and NSPS 40 CFR 60 Subpart IIII, and good combustion	27.34 LB/H	BACT-PSI
						practices (use of ultra-low sulfur diesel fuel).		
LA-0309	BENTELER STEEL TUBE FACILITY	06/04/2015	4/28/2017	Emergency Generator Engines	2922 hp (each)	Complying with 40 CFR 60 Subpart III	6.4 G/KW-HR	BACT-PSE
LA-0307	MAGNOLIA LNG FACILITY	03/21/2016	4/28/2017	Diesel Engines	0	good combustion practices, Use ultra low sulfur diesel, and comply with 40 CFR 60 Subpart IIII	0	BACT-PSD
LA-0308	MORGAN CITY POWER PLANT	09/26/2013	4/28/2017	2000 KW Diesel Fired Emergency Generator Engine	20.4 MMBTU/hr	Good combustion and maintenance practices, and compliance with NSPS 40 CFR 60 Subpart IIII	33.07 LB/H	BACT-PSE
LA-0305	LAKE CHARLES METHANOL FACILITY	06/30/2016	4/28/2017	Diesel Engines (Emergency)	4023 hp	Complying with 40 CFR 60 Subpart IIII	0	BACT-PSE
LA-0296	LAKE CHARLES CHEMICAL COMPLEX LOPE UNIT	05/23/2014	4/28/2017	Emergency Diesel Generators (EQTs 622, 671, 773, 850, 994, 995, 996, 1033,	2682 HP	Compliance with 40 CFR 60 Subpart IIII; operating the engine in accordance with the engine manufacturerace. instructions and/or writhen procedures (consistent with safe operation) designed to maximize combustion efficiency and minimize fuel usage.	27.37 LB/HR	BACT-PSI
LA-0292	HOLBROOK COMPRESSOR STATION	01/22/2016	9/19/2016	Emergency Generators No. 1 & amp; No. 2	1341 HP	Good equipment design, proper combustion techniques use of low sulfur fuel, and compliance with 40 CFR 60 Subpart IIII	, 14.16 LB/HR	BACT-PSD
LA-0288	LAKE CHARLES CHEMICAL COMPLEX	05/23/2014	9/14/2016	Emergency Diesel Generators (EQT 629, 639, 838, 966, & 1264)	2682 HP	Comply with 40 CFR 60 Subpart IIII; operate the engine in accordance with the engine manufacturera€ <sup>™</sup> s instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.	27.37 LB/HR	BACT-PSD
OK-0154	MOORELAND GENERATING STA	07/02/2013	7/29/2016	DIESEL-FIRED EMERGENCY GENERATOR ENGINE	1341 HP	COMBUSTION CONTROL	0.011 LB/HP-HR	BACT-PSD
MD-0043	PERRYMAN GENERATING STATION	07/01/2014	7/25/2016		1300 HP	GOOD COMBUSTION PRACTICES, LIMITED HOURS OF OPERATION, AND EXCLUSIVE USE OF ULSD	4.8 G/HP-H	LAER
FL-0350	ANADARKO PETROLEUM, INC DIAMOND BLACKHAWK DRILLING	12/31/2014	7/7/2016	Main Propulsion Generator Engines	0	Use of good combustion practices based on the most recent manufacturerâ€ <sup>™</sup> s specifications issued for these engines at the time that the engines are operating under this permit		BACT-PSD
MI-0406	RENAISSANCE POWER LLC	11/01/2013	7/7/2016	FG-EMGEN7-8; Two (2) 1,000kW diesel-fueled emergency reciprocating inter	1000 kW	Good combustion practices	4.8 G/B-HP-H	BACT-PSD
MI-0418	WARREN TECHNICAL CENTER	01/14/2015	7/6/2016	FG-BACKUPGENS (Nine (9) DRUPS Emergency Engines)	3490 KW	No add-on controls, but injection timing retardation (ITR) is good design. Engines are tuned for low-NOx operation versus low CO operation.	8 G/KW-H	BACT-PSD
MI-0418	WARREN TECHNICAL CENTER	01/14/2015	7/6/2016	Four (4) emergency engines in FG-BACKUPGENS	2710 KW	No add-on controls, but injection timing retardation (ITR) is good design. Engines are tuned for low-NOx operation versus low CO operation.	7.13 G/KW-H	BACT-PSD
FL-0347	ANADARKO PETROLEUM CORPORATION - EGOM	09/16/2014	7/6/2016	Main Propulsion Generator Diesel Engines	9910 hp	Use of good combustion practices based on the most recent manufacturer's specifications issued for engines and with turbocharger, aftercooler, and high injection	12.7 G/KW-H	BACT-PSD
FL-0347	ANADARKO PETROLEUM CORPORATION - EGOM	09/16/2014	7/6/2016	Emergency Diesel Engine	3300 hp	pressure Use of good combustion practices based on the most recent manufacturer's specifications issued for engines and with turbocharger, aftercooler, and high injection pressure	0	BACT-PSD
AL-0301	NUCOR STEEL TUSCALOOSA, INC.	07/22/2014	6/8/2016	DIESEL FIRED EMERGENCY GENERATOR	800 HP		0.015 LB/HP-H	BACT-PSD
IN-0185	MAG PELLET LLC	04/24/2014	5/13/2016	DIESEL FIRE PUMP	300 HP		3 G/HP-H	BACT-PSD
IL-0114	CRONUS CHEMICALS, LLC	09/05/2014	5/5/2016	Emergency Generator	3755 HP	Tier IV standards for non-road engines at 40 CFR 1039.102, Table 7.	0.67 G/KW-H	BACT-PSD
PR-0009	ENERGY ANSWERS ARECIBO PUERTO RICO RENEWABLE ENERGY	04/10/2014	5/5/2016	Emergency Diesel Generator	0		2.85 G/B-HP-H	BACT-PSD
MA-0039	SALEM HARBOR STATION REDEVELOPMENT	01/30/2014	5/5/2016	Emergency Engine/Generator	7.4 MMBTU/H		4.8 GM/BHP-H	LAER
IN-0180	MIDWEST FERTILIZER CORPORATION	06/04/2014	5/5/2016	DIESEL FIRED EMERGENCY GENERATOR	3600 BHP	GOOD COMBUSTION PRACTICES	4.46 G/B-HP-H	BACT-PSD
IN-0179	OHIO VALLEY RESOURCES, LLC	09/25/2013	5/4/2016	DIESEL-FIRED EMERGENCY GENERATOR	4690 B-HP	GOOD COMBUSTION PRACTICES	4.46 G/B-HP-H	BACT-PSD
IN-0173	MIDWEST FERTILIZER CORPORATION	06/04/2014	5/4/2016	DIESEL FIRED EMERGENCY GENERATOR	3600 BHP	GOOD COMBUSTION PRACTICES	4.46 G/BHP-H	BACT-PSD
LA-0272	AMMONIA PRODUCTION FACILITY	03/27/2013	5/4/2016	EMERGENCY DIESEL GENERATOR (2205-B)	1200 HP	Compliance with 40 CFR 60 Subpart IIII; good combustion practices.	0	BACT-PSD
OH-0355	GENERAL ELECTRIC AVIATION, EVENDALE PLANT	05/07/2013	5/4/2016	Test Cell 1 for Aircraft Engines and Turbines	0		1.7 LB/MMBTU	LAER
OH-0355	GENERAL ELECTRIC AVIATION, EVENDALE PLANT	05/07/2013	5/4/2016	Test Cell 2 for Aircraft Engines and Turbines	0		4.4 LB/MMBTU	LAER
OH-0352	OREGON CLEAN ENERGY CENTER	06/18/2013	5/4/2016	Emergency generator	2250 KW	Purchased certified to the standards in NSPS Subpart IIII	27.8 LB/H	BACT-PSD
AK-0082 AK-0082	POINT THOMSON PRODUCTION FACILITY POINT THOMSON PRODUCTION FACILITY	01/23/2015	2/19/2016		2695 hp		4.8 GRAMS/HP-H	BACT-PSD BACT-PSD
		01/23/2015	2/19/2016		610 hp		3 GRAMS/HP-H	
AK-0082	POINT THOMSON PRODUCTION FACILITY	01/23/2015	2/19/2016	Bulk Tank Generator Engines	891 hp		4.8 GRAMS/HP-H	BACT-PSD

Number         Distance         Market         Distance         Market         Mar	RBLCID	Facility Name	Permit Issuance Date	Date Last Updated	Process Name	Throughput	Control Method Description	Emission Limit EMISSION LIMIT 1	AV BASIS
ADDCOUNTC									BACT-PSD
Mathematical         Normalian         Nature interaction of the second s									
Harman     Relation     Relatio							practices		
Mode     Mode     Monton	MI-0452	MEC SOUTH, LLC	06/23/2022	4/25/2023	EUEMENGINE (South Plant): Emergency engine	1341 HP		3.5 G/KW-H	BACT-PSD
Number         Numer         Numer         Numer <td>MI-0451</td> <td>MEC NORTH, LLC</td> <td>06/23/2022</td> <td>4/25/2023</td> <td>EUEMENGINE (North Plant): Emergency engine</td> <td>1341 HP</td> <td>Good combustion practices and meeting NSPS IIII</td> <td>3.5 G/KW-H</td> <td>BACT-PSD</td>	MI-0451	MEC NORTH, LLC	06/23/2022	4/25/2023	EUEMENGINE (North Plant): Emergency engine	1341 HP	Good combustion practices and meeting NSPS IIII	3.5 G/KW-H	BACT-PSD
Number         Number<	AR-0177	NUCOR STEEL ARKANSAS	11/21/2022	4/25/2023	SN-230 Galvanizing Line No. 2 Emergency Generator	3634 Horsepower		3.5 G/KW-HR	BACT-PSD
Number         Object         Option         Option         Number         Number<							oxidation catalyst and certified engine		
Normalization         Normalinstation         Normalization         Normal									BACT-PSD
Barbar     Barbar <td>*LA-0391</td> <td>MAGNOLIA POWER GENERATING STATION UNIT 1</td> <td>06/03/2022</td> <td>3/6/2023</td> <td>Emergency Diesel Generator Engine</td> <td>2937 hp</td> <td></td> <td>2.6 G/HP-HR</td> <td>BACT-PSD</td>	*LA-0391	MAGNOLIA POWER GENERATING STATION UNIT 1	06/03/2022	3/6/2023	Emergency Diesel Generator Engine	2937 hp		2.6 G/HP-HR	BACT-PSD
Shifty Holds, Handbard,									
MARINE         MARINE         Optimizer         Marine Americanism         Mari	KS-0036	WESTAR ENERGY - EMPORIA ENERGY CENTER	03/18/2013	3/1/2023	Caternillar C18DITA Diesel Engine Generator	900 BHP		1.8 LB/HR	BACT-PSD
11.3133         CONTRATINGTO CONTRAT         07/12/30         12/12/30         Particle in the proop function of the									
<ul> <li>Markan Baraker Carrier Markan M</li></ul>							compliance with 40 CFR 00 Subpart III		
No. 1000000000000000000000000000000000000							Operative limited to 500 km of the end operation		
Number of the state o	WI-0300	NEMADJI TRAIL ENERGY CENTER	09/01/2020	9/16/2022	Emergency Diesel Generator (PD7)	1490 HP	maintain generator according to the manufacturer's	2.6 G/HP-H	BACI-PSD
Model         Gold Wildle ShatticEESMD         12/12/320         K1/200         Description of the spin	AK-0088	LIQUEFACTION PLANT	07/07/2022	8/16/2022		27.9 Gal/hr		3.3 G/HP-HR	BACT-PSD
Model         Gold Wildle ShatticEESMD         12/12/320         K1/200         Description of the spin									BACT-PSD
MeMeda         Microbits         Microits         Microbits         Mi	MI-0448	GRAYLING PARTICLEBOARD	12/18/2020	8/16/2022		500 h/yr	Good Design and Combustion Practices	3.5 G/KW-H	BACT-PSD
NA128         NUMBER STRATURES MODARAYILG         Opiological         Number Stratuge St	MI-0448	GRAYLING PARTICLEBOARD	12/18/2020	8/16/2022	Diesel fire pump engine (EUFIREPUMP in FGRICE)	500 h/yr	Good Design and Combustion Practices	3.5 G/KW-H	BACT-PSD
NADB3         NADB3         NUMBATE FRUIT (READ/NORMATI LC)         Op/Op/Op/Op/Op/Op/Op/Op/Op/Op/Op/Op/Op/O									
Access     Order Text Marker FANT     Optical Sea Transmission     Description     Description <thdescription< th="">     Description</thdescription<>									
"Woods     Matisshulle     Quing Quing     Quing Qui									BACT-PSD
"No 03     MODULE     Option       TA 033     ACERD FLAMELL FACULTY     1/17/201     N/2022     Engency Generators     0     Description     Option     Description     Descriptio	*WV-0033	MAIDSVILLE	01/05/2022	6/28/2022	Emergency Generator	2100 hp	Good Combustion Practices w/ OxCat. Applicant did not	1.94 LB/HR	BACT-PSD
TX-58     No.EBD PMWELL FACULTY     11/17/202     38/2022     Regrege Generators     0     regreges Generators     0     Refress       TX-65     WT5     0.0175     0.017202     38/2022     ESSL SINFATOR     0     0.01765     0.01765     0.01766     0.01767     0.01767     0.01767     0.01767     0.01767     0.01767     0.01767     0.01767     0.01767     0.01767     0.01767     0.01767     0.01767     0.01767     0.01767     0.01767     0.01772000     0.01772000     0.01720000     0.01720000     0.01720000     0.01720000 <td>*WV-0033</td> <td>MAIDSVILLE</td> <td>01/05/2022</td> <td>6/28/2022</td> <td>Fire Water Pump</td> <td>240 bhp</td> <td>Good Combustion Practices w/ OxCat. Applicant did not</td> <td>1.38 LB/HR</td> <td>BACT-PSD</td>	*WV-0033	MAIDSVILLE	01/05/2022	6/28/2022	Fire Water Pump	240 bhp	Good Combustion Practices w/ OxCat. Applicant did not	1.38 LB/HR	BACT-PSD
NHS       N/177021       N/17	TX-0933	NACERO PENWELL FACILITY	11/17/2021	3/8/2022	Emergency Generators	0	engine	0	BACT-PSD
VICTORE         OINTERNATIONAL VISCOMENN, NICENERGY PLANT         O/L/J/L001         I/L/2001         I/L/2001 <thi 2001<="" l="" th="">         I/L/2001         I/L/2001<td>TV 0045</td><td></td><td>02/47/2024</td><td>2/0/2022</td><td></td><td></td><td>emission standards</td><td></td><td>0.4 CT 0CD</td></thi>	TV 0045		02/47/2024	2/0/2022			emission standards		0.4 CT 0CD
W1028         W102FRMATIONAL WISCONSIN, W.C. HNRKOF PLANT         04/24/2018         38/2022         Description of the energency Generators         0         Good Combustion Practices         0.6 G(WM)         BACT-PSE           W1028         MCRARES UNG EXPORT         0/11/2020         34/2022         Description of the energency Generators (POGD and P010)         3131 HP         Ter IV Region combustion Practices         0         BACT-PSE           0H-388         PETMIN USA INCORPORATED         0/11/2020         34/2022         Emergency Generators (POGD and P0010)         3131 HP         Ter IV Region combustion Practices         0         BACT-PSE           0H-388         DRI LAR FUELS METHANDAL PLANT         0/11/2020         34/2022         Emergency Generators (POGD and P0010)         0         Comply with standards of 40 CFR 60 Subpart IIII         0         AACT-PSE           0H-388         DRI LAR FUELS METHANDAL PLANT         0/01/2021         3/4/2022         Emergency Generators         0         Comply with standards of 40 CFR 60 Subpart IIII         0         AACT-PSE           0H-398         HETMIN USA INCORPORATED         0/01/2021         3/4/2022         Sold With Termercy Cenerator         138 IM         Comply with standards of 40 CFR 60 Subpart IIII         0         ACT-PSE           0H-398         HETMIN LAN INCOMINING PLANTT         0/01/2021         3/01/202								,	
LAB323       LACE CHARLES, INGERORATE TENNINAL       09/18/2020       3/4/2022       Emergency Engines (E070016)       0       Compby with 40 CFR 60 Subpart III       0       BACT-PSC         0H-0383       ETMIN USA INCORPORATED       07/17/2020       3/4/2022       Emergency Generators (POS) and POD)       3131 HP       Ter IV NSPS standards certified by engine manufacturer.       0       BACT-PSC         0H-0383       ETMIN USA INCORPORATED       07/17/2020       3/4/2022       Emergency Generators (POS) and POD)       3131 HP       Ter IV NSPS standards certified by engine manufacturer.       0       BACT-PSC         0H-0383       ETMIN USA INCORPORATED       0/17/2020       3/4/2022       Emergency Generators (POS) and POD)       0       Comply with standards of 0 GR 60 Subpart III       0       BACT-PSC         14.022       ISIN ETCH PAGUEINNES PLATT       06/07/2021       3/4/2022       LOW Memgency Deside Generator       1383 PB       Good combustion practice/gascous fue lumine,       8.5 G/HP-HR       BACT-PSC         14.032       ISIN ETCH PAGUEINNES PLATT       05/04/2021       3/4/2022       LOW Emergency Generator A       1383 PB       Good combustion practice/gascous fue lumine,       8.5 G/HP-HR       BACT-PSC         14.033       SINTECH PAGUEINNES PLATT       05/04/2021       3/4/2022       LOW Emergency Generator       1383 PB       G						•			
0H-38       PETMIN USA INCORPORATED       0/17/2020       9/4/2020       Interfered emigency fire pumps (2) (9009 and P010)       3.31 HP       Tier VNRPS standards certified by engine manufacturers.       0       0.847.PS2         0H-38       PETMIN USA INCORPORATED       0/17/2020       9/4/2020       Intergency Generators (1000 and P006)       3.31 HP       Tier V engine combustion practices (2000 c						-			
0H-388       PETMIN USA INCORPORATED       0/11/2020       3/4/202       Emergency Generators (P005 and P006)       3131 HP       Ter V engine       0       BACT-PSC         1A-382       BIG LAKE FUELS METHANOL PLANT       0/4/25/2019       3/4/2022       Emergency Engines (EQT0014 - EQT0017)       0       0       BACT-PSC         1A-382       MBM MUSC MUSE DCVLE FACULTY       0/01/2020       3/4/2022       Disci Mergency Engines (EQT0014 - EQT0017)       0       0       BACT-PSC         1A-382       MAIM MUSC MUSE DCVLE FACULTY       0/01/2020       3/4/2022       Disci Mergency Engines (EQT0014 - EQT0017)       0       0       Disci Mergency Engines (EQT0014 - EQT0017)       0       BACT-PSC         1A-383       MINITECH FALQUEMINES FLANT 1       05/04/2021       3/4/2022       Disci Mergency Engines (EQT0014 - EQT0017)       0       0       Disci Mergency Engines (EQT0014 - EQT0017)       0       BACT-PSC       0       Disci Mergency Engines (EQT0014 - EQT0017)       0       Disci Mergency Engines (EQT0017)       0       Disci Mergency Engines (EQT0017)       0       Disci Mergency En						-			
Horizon de la Carte FUELS METHANOL PLANT       HOZZ/2019       34/2022 stord feagence feagines (Eq10014 - EQ10017)       0       Comply with standards of 40 CFR 60 Subpart IIII       0       Red-TP-SEC         FL-0321       SHADY HILLS COMBINED CYCLE FACILITY       10/07/202       34/2022       1500 WK Emergency feagines (Eq10014 - EQ10017)       14.82 MMBun/hour       35 G/WH-140.8 RACT-SEC         A1232       PLANT       050/4/2021       34/2022       1500 WK Emergency Generator A       1388 hp       Good combustion practice/gaseous fue burning.       85 G/HP-14R       RACT-SEC         LA0379       SHINTECH PLAQUENINES PLANT 1       050/4/2021       34/2022       VCM Unit Emergency Generator A       1380 hp       Good combustion practice/gaseous fue burning.       85 G/HP-14R       RACT-SEC         PL0379       SHINTECH PLAQUENINES PLANT 1       050/4/2021       34/2022       1,500 WE emergency Generator A       1380 hp       Good combustion practice/gaseous fue burning.       85 G/HP-14R       RACT-SEC         FL0387       SHADY HILLS COMBINED CYCLE FACILITY       07/27/2018       34/2022       1,500 WE emergency Generator B       16.822 MMBun/hour       Dimon do do combustion practice/gaseous fue burning.       85 G/W-14R       RACT-SEC         FL0387       SHADY HILLS COMBINED CYCLE FACILITY       07/27/2018       34/2022       1,500 WE emergency Generator B       0       Complemer	OH-0383	PETMIN USA INCORPORATED	07/17/2020	3/4/2022	Diesel-fired emergency fire pumps (2) (P009 and P010)	3131 HP	Tier IV NSPS standards certified by engine manufacturer.	0	BACT-PSD
FL-037SHADW HILLS COMBINED CYCLE FACULTY66/07/2013/4/20215.00 WK mergency biesed Generator14.82 MMBtu/hour14.82 MMBtu/hour15.00 WK mergency biesed Generator8.4.7 SetLA-038PLM TECH FLAQUEMINES PLANT I05/04/2013/4/2022VCM Unit Emergency Generator A1389 hpGood combustion practices/geneous fuel burning, 6.6 Grambustion practices/geneous fuel burning, 8.5 G/HP-HR8.5 G/HP-HR8.4.7 SetLA-037SHINTECH FLAQUEMINES PLANT I05/04/2013/4/20221.500 WK mergency Generator A1389 hpGood combustion practices/geneous fuel burning, 6.5 Grambustion practices/geneous fuel burning, 8.5 G/HP-HR8.5 G/HP-HR<	OH-0383	PETMIN USA INCORPORATED		3/4/2022	Emergency Generators (P005 and P006)	3131 HP		0	BACT-PSD
AL-032PLANT BARPY11/09/20031/202Descel temory fregines02.6G/BHP-HRBACT-SECAL-037SILNTECH PLAQUENINES PLANT 15/0/4/20131/4/202C/U Unit temory fregines138 bpGood combustion practice/gasous fuel burning.5.5G/HP-HRBACT-SECLA-037SILNTECH PLAQUENINES PLANT 15/0/4/20131/4/202C/U Unit temory fregines130 bpGood combustion practice/gasous fuel burning.5.5G/HP-HRBACT-SECLA-037SILNTECH PLAQUENINES PLANT 10/0/2/20131/4/2021.500 kW mergency Generator 81.82MBBu/hourOperate and maintain the engine according to the mainfacture's withen instructions3.5GRAMS PER KMBACT-SECLA-038DANIA BAREV CENTER12/0/201731/4/2021.500 kW emergency generators0Certified engine3.5GRAMS PER KMBACT-SECM-044LBWU-ERGY CENTER10/0/20191/0/201VIM030 kW emergency generators0Certified engine3.5GRAMS PER KMBACT-SECM-044LBWU-ERGY CENTER10/0/20191/0/201VIM030 kW emergency empine444.2 kW0Imited to 100 hours per year of non-emergency operation0ACT-SECTX-095DAMOND GREEN DIESEL PORT ARTHUR FACILITY0/1/6/2028/9/201Imergency Generator Diesel Engines550 hpImited to 100 hours per year of non-emergency operation0ACT-SECLA-036FG LA COMPLEX0/1/0/2028/9/201Imergency Fire Water Pumps550 hpCompliance with the imitations impose	LA-0382	BIG LAKE FUELS METHANOL PLANT	04/25/2019	3/4/2022	Emergency Engines (EQT0014 - EQT0017)	0	Comply with standards of 40 CFR 60 Subpart III	0	BACT-PSD
LA-037       SHINECH FLQUEMINES PLANT 1       05(0/2021       3/4/2022       VCM Une regregros Generator A       1389 hp       God combustion practice/sgaeous fue burnine.       8.5 (/H-HR       8ACT-PSE         LA-037       SHINECH FLQUEMINES PLANT 1       05(0/2021       3/4/2022       1,500 kW Emergency Diesel Generator       1800 hp       God combustion practice/sgaeous fue burnine.       8.5 (/H-HR       8ACT-PSE         FL-037       SHINECH FLQUEMINES PLANT 1       05(0/2021       3/4/2022       1,500 kW Emergency Diesel Generator       1.800 hp       God combustion practice/sgaeous fue burnine.       8.5 (/H-HR       8ACT-PSE         FL-037       SHINECH FLQUEMINES PLANT 1       07/7/2018       3/4/2022       1,500 kW Emergency Generators       0       Certified ingle       3.5 G/AMS PER KWH       BACT-PSE         FL-038       DAIA BEACH ENERGY CENTER       12/0/2017       3/4/2022       Two 300 kW emergency generators       0       Certified ingle       3.5 G/AMS PER KWH       BACT-PSE         MI-047       LBWC-ERICKSON STATION       01/07/2021       9/10/2021       EUERGENCY GENERATOR       0       Condombustion practices and will be NSPS compliant.       3.5 G/AW-H       BACT-PSE         TX-090       DAMOND GREEN DESEL PORT ARTHUR FACILITY       09/16/2020       8/9/2021       EMEGENCY GENERATOR       0       Compliance with the limitations	FL-0371	SHADY HILLS COMBINED CYCLE FACILITY	06/07/2021	3/4/2022	1,500 kW Emergency Diesel Generator	14.82 MMBtu/hour		3.5 G/KW-HOUR	BACT-PSD
LA-0379SHINTECH PLAQUEMINES PLANT I SHADY HILLS COMBINES OF CARE ITACINTY0/0/2/2013/4/2022C/A Emergency Generator B 1/20221800 hpGood combustion practice/jasses function in the combustion of practice/jasses function in the combustion practice/jasses function in the	AL-0328	PLANT BARRY	11/09/2020	3/4/2022	Diesel Emergency Engines	0		2.6 G/BHP-HR	BACT-PSD
LA-037SHINTECH PLAQUEMINES PLANT I SHAD WILLS COMBINES OF CREE FACILITY0/4/20213/4/2022C/A Emergency Generator B 13/4/20221800 hpGood combustion practice/gaseous functions manufacture/s written instructions8.5 G/HP-HR ACT-PSC8ACT-PSC ACT-PSCFL-0363DANIA BEACH ENERGY CRUET FR MOTIVA POLVET FHYLENE MANUFACTURING COMPLEX12/0/20123/4/2022Two 3300 kW emergency generators01/4/82 MMBtu/hourOperation Operation3.5 G/AW-HOUR8ACT-PSC ACT-PSCFL-0364DANIA BEACH ENERGY CRUTE FR MOTIVA POLVET FHYLENE MANUFACTURING COMPLEX12/0/2012EMERGENCY GENERATOR000 <td< td=""><td>LA-0379</td><td>SHINTECH PLAQUEMINES PLANT 1</td><td>05/04/2021</td><td>3/4/2022</td><td>VCM Unit Emergency Generator A</td><td>1389 hp</td><td>Good combustion practices/gaseous fuel burning.</td><td>8.5 G/HP-HR</td><td>BACT-PSD</td></td<>	LA-0379	SHINTECH PLAQUEMINES PLANT 1	05/04/2021	3/4/2022	VCM Unit Emergency Generator A	1389 hp	Good combustion practices/gaseous fuel burning.	8.5 G/HP-HR	BACT-PSD
FL-036       SHADY HILLS COMBINED CYCLE FACILITY       07/27/2018       3/4/2022       1,500 kW Emergency Diesel Generator       14.82       MBRU/hour       Operate and maintain the engine according to the maintain  LA-0379	SHINTECH PLAQUEMINES PLANT 1		3/4/2022		1800 hp		8.5 G/HP-HR	BACT-PSD	
TX-0904MOTIVA POLYETHYLENE MANUFACTURING COMPLEX09/09/202012/1/2021EMERGENCY GENERATOR0100 HOURS OPERATIONS, Tier 4 exhaust emission0BACT-PSCMI-0447IBWL-ERICKSON STATION01/07/20219/10/2021EUEMGD-emergency engine4474.2 KWGod combustion practices and will be MSPS compliant.3.5 G/KW-HBACT-PSCTX-0905DIAMOND GREEN DIESEL PORT ARTHUR FACILITY09/16/20209/10/2021EMERGENCY GENERATOR0Imited to 100 hours per year of non-emergency operation0BACT-PSCLA-0364FG LA COMPLEX01/06/20208/9/2021EMERGENCY GENERATOR0Imited to 100 hours per year of non-emergency operation0BACT-PSCLA-0364FG LA COMPLEX01/06/20208/9/2021EMErgency Generator Diesel Engines550 hpCompliance with the limitations imposed by 40 CFR 63 the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.0BACT-PSCLA-0364FG LA COMPLEX01/06/20208/9/2021Emergency Fire Water Pumps550 hpCompliance with the limitations imposed by 40 CFR 63 to upartitie in accordance with the engine maximize combustion efficiency and minimize fuel usage.0BACT-PSCLA-0364FG LA COMPLEX01/06/20208/9/2021Bergency Fire Water Pumps550 hpCompliance with the limitations imposed by 40 CFR 63 to upartitie in accordance with the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.0 <td>FL-0367</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Operate and maintain the engine according to the</td> <td></td> <td>BACT-PSD</td>	FL-0367						Operate and maintain the engine according to the		BACT-PSD
TX-0904MOTIVA POLYETHYLENE MANUFACTURING COMPLEX09/09/202012/1/2021EMERGENCY GENERATOR0100 HOURS OPERATIONS, Tier 4 exhaust emission0BACT-PSCMI-0447IBWL-ERICKSON STATION01/07/20219/10/2021EUEMGD-emergency engine4474.2 KWGod combustion practices and will be MSPS compliant.3.5 G/KW-HBACT-PSCTX-0905DIAMOND GREEN DIESEL PORT ARTHUR FACILITY09/16/20209/10/2021EMERGENCY GENERATOR0Imited to 100 hours per year of non-emergency operation0BACT-PSCLA-0364FG LA COMPLEX01/06/20208/9/2021EMERGENCY GENERATOR0Imited to 100 hours per year of non-emergency operation0BACT-PSCLA-0364FG LA COMPLEX01/06/20208/9/2021EMErgency Generator Diesel Engines550 hpCompliance with the limitations imposed by 40 CFR 63 the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.0BACT-PSCLA-0364FG LA COMPLEX01/06/20208/9/2021Emergency Fire Water Pumps550 hpCompliance with the limitations imposed by 40 CFR 63 to upartitie in accordance with the engine maximize combustion efficiency and minimize fuel usage.0BACT-PSCLA-0364FG LA COMPLEX01/06/20208/9/2021Bergency Fire Water Pumps550 hpCompliance with the limitations imposed by 40 CFR 63 to upartitie in accordance with the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.0 <td>FL-0363</td> <td>DANIA BEACH ENERGY CENTER</td> <td>12/04/2017</td> <td>3/4/2022</td> <td>Two 3300 kW emergency generators</td> <td>0</td> <td>Certified engine</td> <td>3.5 GRAMS PER KWH</td> <td>BACT-PSD</td>	FL-0363	DANIA BEACH ENERGY CENTER	12/04/2017	3/4/2022	Two 3300 kW emergency generators	0	Certified engine	3.5 GRAMS PER KWH	BACT-PSD
TX-0905       DIAMOND GREEN DIESEL PORT ARTHUR FACILITY       09/16/2020       9/10/2021       EMERGENCY GENERATOR       0       Imited to 100 hours per year of non-emergency operation       0       BACT-PSC         LA-0364       FG LA COMPLEX       01/06/2020       8/9/2021       Emergency Generator Diesel Engines       550 hp       Compliance with the limitations imposed by 40 CFR 63       0       BACT-PSC         LA-0364       FG LA COMPLEX       01/06/2020       8/9/2021       Emergency Generator Diesel Engines       550 hp       Compliance with the limitations imposed by 40 CFR 63       0       BACT-PSC         LA-0364       FG LA COMPLEX       01/06/2020       8/9/2021       Emergency Fire Water Pumps       550 hp       Compliance with the limitations imposed by 40 CFR 63       0       BACT-PSC         LA-0364       FG LA COMPLEX       01/06/2020       8/9/2021       Emergency Fire Water Pumps       550 hp       Compliance with the limitations imposed by 40 CFR 63       0       BACT-PSC         LA-0364       FG LA COMPLEX       01/06/2020       8/9/2021       Emergency Fire Water Pumps       550 hp       Compliance with the limitations imposed by 40 CFR 63       0       BACT-PSC         LA-0364       FG LA COMPLEX       01/06/2020       8/9/2021       Emergency Fire Water Pumps       550 hp       Compliance with the limitations imposed by 40 CFR	TX-0904	MOTIVA POLYETHYLENE MANUFACTURING COMPLEX	09/09/2020	12/1/2021	EMERGENCY GENERATOR	0		0	BACT-PSD
LA-0364       FG LA COMPLEX       01/06/2020       8/9/2021       Emergency Generator Diesel Engines       550 hp       Compliance with the limitations imposed by 40 CFR 63       0       BACT-PSC         LA-0364       FG LA COMPLEX       01/06/2020       8/9/2021       Emergency Generator Diesel Engines       550 hp       Compliance with the limitations imposed by 40 CFR 63       0       BACT-PSC         LA-0364       FG LA COMPLEX       01/06/2020       8/9/2021       Emergency Fire Water Pumps       550 hp       Compliance with the limitations imposed by 40 CFR 63       0       BACT-PSC         LA-0364       FG LA COMPLEX       01/06/2020       8/9/2021       Emergency Fire Water Pumps       550 hp       Compliance with the limitations imposed by 40 CFR 63       0       BACT-PSC         LA-0364       FG LA COMPLEX       01/06/2020       8/9/2021       Emergency Fire Water Pumps       550 hp       Compliance with the limitations imposed by 40 CFR 63       0       BACT-PSC         VILLA-0364       FG LA COMPLEX       01/06/2020       8/9/2021       Emergency Fire Water Pumps       550 hp       Compliance with the limitations imposed by 40 CFR 63       0       BACT-PSC         VILLA-0364       FG LA COMPLEX       01/06/2020       8/9/2021       Emergency Fire Water Pumps       550 hp       Compliance with the limitations imposed by 40 CFR 63	MI-0447						Good combustion practices and will be NSPS compliant.	3.5 G/KW-H	BACT-PSD
LA-0364 FG LA COMPLEX 01/06/2020 8/9/2021 Emergency Fire Water Pumps 550 hp Compliance with the limitations imposed by 40 CFR 63 0 BACT-PSC Subpart IIII and operating the engine in accordance with the limitations imposed by 40 CFR 63 0 BACT-PSC Subpart IIII and operating the engine in accordance with the limitations imposed by 40 CFR 63 0 BACT-PSC Subpart IIII and operating the engine in accordance with the limitations imposed by 40 CFR 63 0 BACT-PSC Subpart IIII and operating the engine in accordance with the limitations imposed by 40 CFR 63 0 BACT-PSC Subpart IIII and operating the engine in accordance with the engine in accor	TX-0905	DIAMOND GREEN DIESEL PORT ARTHUR FACILITY	09/16/2020	9/10/2021	EMERGENCY GENERATOR	0		0	BACT-PSD
Subpart IIII and operating the engine in accordance with the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.	LA-0364	FG LA COMPLEX	01/06/2020	8/9/2021	Emergency Generator Diesel Engines	550 hp	Subpart IIII and operating the engine in accordance with the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency	0	BACT-PSD
MI-0442 THOMAS TOWNSHIP ENERGY, LLC 08/21/2019 8/9/2021 FGEMENGINE 1100 KW 0.15 G/HP-H BACT-PSC	LA-0364	FG LA COMPLEX	01/06/2020	8/9/2021	Emergency Fire Water Pumps	550 hp	Subpart IIII and operating the engine in accordance with the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency	0	BACT-PSD
	MI-0442	THOMAS TOWNSHIP ENERGY, LLC	08/21/2019	8/9/2021	FGEMENGINE	1100 KW		0.15 G/HP-H	BACT-PSD

RBLCID	Facility Name	Permit Da Issuance Date U	ate Last pdated	Process Name	Throughput	Control Method Description	Emission Limit EMISSION_LIM	IT_1_A\ BASIS
MI-0441	LBWLERICKSON STATION	12/21/2018	8/9/2021	EUEMGD1A 1500 HP diesel fueled emergency engine	1500 HP	Good combustion practices and will be NSPS compliant.	3.5 G/KW-H	BACT-PSD
MI-0441	LBWLERICKSON STATION	12/21/2018	8/9/2021	EUEMGD2A 6000 HP diesel fuel fired emergency engine	6000 HP	Good combustion practices and will be NSPS compliant.	3.5 G/KW-H	BACT-PSD
MA-0043	MIT CENTRAL UTILITY PLANT	06/21/2017	8/9/2021	Cold Start Engine	19.04 MMBTU/HR		2.2 LB/HR	OTHER CASE
LA-0350	BENTELER STEEL TUBE FACILITY	03/28/2018	8/6/2021	emergency generators (3 units) EQT0039, EQT0040, EQT0041	0	Comply with 40 CFR 60 Subpart IIII	0	BACT-PSD
LA-0346	GULF COAST METHANOL COMPLEX		8/6/2021	emergency generators (4 units)	13410 hp (each)	Comply with standards of 40 CFR 60 Subpart JJJJ	4 G/BHP-HR	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC		5/26/2021		2922 HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC			Tunnel Furnace Emergency Generator (EP 08-06)	2937 HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0	BACT-PSD
KY-0115 KY-0115	NUCOR STEEL GALLATIN, LLC			Caster B Emergency Generator (EP 08-07)	2937 HP 700 HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0	BACT-PSD BACT-PSD
IN-0317	RIVERVIEW ENERGY CORPORATION			Air Separation Unit Emergency Generator (EP 08-08)	2800 HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	3.5 G/KWH	BACT-PSD BACT-PSD
IN-0317 IN-0317	RIVERVIEW ENERGY CORPORATION			Emergency generator EU-6006 Emergency fire pump EU-6008	2800 HP 750 HP	Tier II diesel engine Engine that complies with Table 4 to Subpart IIII of Part	3.5 G/KWH	BACT-PSD BACT-PSD
VA-0332	CHICKAHOMINY POWER LLC			Emergency Diesel Generator - 300 kW	500 H/YR	60 good combustion practices, high efficiency design, and	2.6 G/HP-H	BACT-PSD
1110552		00/24/2025	3/13/2021		500 11/11	the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	2.0 0,111	5,61155
AR-0161	SUN BIO MATERIAL COMPANY	09/23/2019	5/5/2021	Emergency Engines	0	Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	3.5 G/KW-H	BACT-PSD
*LA-0315	G2G PLANT	05/23/2014	4/5/2021	Emergency Diesel Generator 1	5364 HP	Compliance with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	30.86 LB/H	BACT-PSD
	G2G PLANT	05/23/2014	4/5/2021	Emergency Diesel Generator 2	5364 HP	Compliance with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	30.86 LB/H	BACT-PSD
	G2G PLANT	05/23/2014		Fire Pump Diesel Engine 1	751 HP	Compliance with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	4.32 LB/H	BACT-PSD
	G2G PLANT	05/23/2014	4/5/2021		751 HP	Compliance with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	4.32 LB/H	BACT-PSD
KY-0110	NUCOR STEEL BRANDENBURG			EP 10-02 - North Water System Emergency Generator	2922 HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	2.61 G/HP-HR	BACT-PSD
KY-0110 KY-0110	NUCOR STEEL BRANDENBURG			EP 10-03 - South Water System Emergency Generator	2922 HP 920 HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	2.61 G/HP-HR 2.61 G/HP-HR	BACT-PSD BACT-PSD
KY-0110	NUCOR STEEL BRANDENBURG			EP 10-04 - Emergency Fire Water Pump EP 10-07 - Air Separation Plant Emergency Generator	920 HP 700 HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan. This EP is required to have a Good Combustion and	2.61 G/HP-HR	BACT-PSD BACT-PSD
KY-0110	NUCOR STEEL BRANDENBURG			EP 10-01 - Caster Emergency Generator	2922 HP	Operating Practices (GCOP) Plan. This EP is required to have a Good Combustion and	2.61 G/HP-HR	BACT-PSD
KY-0109	FRITZ WINTER NORTH AMERICA, LP			Emergency Generators #1, #2, & #3 (EU72, EU73, & EU74)	53.6 gal/hr	Operating Practices (GCOP) Plan. The permittee shall prepare and maintain for EU72,	2.6 G/HP-HR (EU72	
						EU73, and EU74, within 90 days of startup, a good combustion and operation practices plan (GCOP) that defines, measures and verifies the use of operational and design practices determined as BACT for minimizing CO, VOC, PM, PM10, and PM2.5 emissions. Any revisions requested by the Division shall be made and the plan shall be maintained on site. The permittee shall operate according to the provisions of this plan at all times, including periods of startup, shutdown, and malfunction. The plan shall be incorporated into the plant standard operating procedures (SOP) and shall be made available for the Divisionâ <sup>cm</sup> s inspection. The plan shall include, but not be limited to: i. A list of combustion optimization practices and a means of verifying the practices have occurred. ii. A list of combustion and operation practices to be used to lower energy consumption and a means of verifying the practices have occurred. iii. A list of the design house determined to be BACT and verification that designs were implemented in the final construction.		
	INDECK NILES, LLC			EUEMENGINE (diesel fuel emergency engine)	22.68 MMBTU/H	Good Combustion Practices and meeting NSPS Subpart IIII requirements	3.5 G/KW-H	BACT-PSD
TX-0888	ORANGE POLYETHYLENE PLANT	04/23/2020	11/12/2020	EMERGENCY GENERATORS & amp; FIRE WATER PUMP ENGINES	0	well-designed and properly maintained engines and each limited to 100 hours per year of non-emergency use.	0	BACT-PSD
TX-0876	PORT ARTHUR ETHANE CRACKER UNIT	02/06/2020	11/12/2020	Emergency generator	0	use. Tier 4 exhaust emission standards specified in 40 CFR § 1039.101, limited to 100 hours per year of non- emergency operation	0	BACT-PSD

RBLCID	Facility Name	Permit Issuance Date	Date Last Updated	Process Name	Throughput	Control Method Description	Emission Limit EMISSION_LIMIT	_1_A\ BASIS
TX-0876	PORT ARTHUR ETHANE CRACKER UNIT	02/06/2020	-	Emergency firewater pumps	0	Tier 3 exhaust emission standards specified in 40 CFR §		BACT-PSD
		,,	,,		-	89.112, limited to 100 hours per year of non-emergency operation	-	
TX-0872	CONDENSATE SPLITTER FACILITY	10/31/2019	11/12/2020	Emergency Generators	0	Limiting duration and frequency of generator use to 100		BACT-PSD
						hr/yr. Good combustion practices will be used to reduce VOC including maintaining proper air-to-fuel ratio.		
AR-0163	BIG RIVER STEEL LLC	06/09/2019	11/10/2020	Emergency Engines	0	Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	3.5 G/KW-HR	BACT-PSD
MD-0042	WILDCAT POINT GENERATION FACILITY	04/08/2014	8/12/2020	EMERGENCY GENERATOR 1	2250 KW	USE OF ULSD FUEL, GOOD COMBUSTION PRACTICES AND HOURS OF OPERATION LIMITED TO 100 HOURS PER YEAR	2.6 G/HP-H	BACT-PSD
*LA-0312	ST. JAMES METHANOL PLANT	06/30/2017	5/1/2020	DFP1-13 - Diesel Fire Pump Engine (EQT0013)	650 horsepower	Compliance with NSPS Subpart IIII	0.9 LB/HR	BACT-PSD
*LA-0312		06/30/2017	5/1/2020	DEG1-13 - Diesel Fired Emergency Generator Engine (EQT0012)	1474 horsepower	Compliance with NSPS Subpart III	0.51 LB/HR	BACT-PSD
IL-0130	JACKSON ENERGY CENTER	12/31/2018		Emergency Engine	1500 kW	··· þ · · · · · · · · · · · · · · · · ·	3.5 G/KW-HR	BACT-PSD
AK-0084	DONLIN GOLD PROJECT	06/30/2017		Black Start and Emergency Internal Cumbustion Engines	1500 kWe	Good Combustion Practices	4.38 G/KW-HR	BACT-PSD
AK-0084	DONLIN GOLD PROJECT	06/30/2017			143.5 MMBtu/hr	Oxidation Catalyst and Maintain Good Combustion	0.18 G/KW-HR (ULSD)	
PA-0291	HICKORY RUN ENERGY STATION	04/23/2013	3/2/2020	EMERGENCY GENERATOR	7.8 MMBTU/H	Practices	5.79 LB/H	OTHER CAS
TX-0728		04/23/2015				Minimized house of exceptions Ties II engine	0.0126 G/HP HR	OTHER CAS
*AL-0728	PEONY CHEMICAL MANUFACTURING FACILITY TALLADEGA SAWMILL	12/18/2017		Emergency Diesel Generator 250 Hp Emergency CI, Diesel-fired RICE	1500 hp 0	Minimized hours of operations Tier II engine	0.0126 G/HP HK	N/A
OH-0378	PTTGCA PETROCHEMICAL COMPLEX	12/18/2017		Emergency Diesel-fired Generator Engine (P007)	3353 HP	certified to the meet the emissions standards in Table 4	19.25 LB/H	BACT-PSD
01-0378		12/21/2018	0/13/2015	Emergency Diesennieu Generator Engine (F007)	3333 TIF	of 40 CFR Part 60, Subpart IIII, shall employ good combustion practices per the manufacturer's operating manual	15.25 15/11	BACI-F3D
OH-0378	PTTGCA PETROCHEMICAL COMPLEX	12/21/2018	6/19/2019	1,000 kW Emergency Generators (P008 - P010)	1341 HP	certified to the meet the emissions standards in Table 4 of 40 CFR Part 60, Subpart IIII, shall employ good combustion practices per the manufacturer's	7.7 LB/H	BACT-PSD
OH-0376	IRONUNITS LLC - TOLEDO HBI	02/09/2018	C/10/2010	Emorene direct fired concerter (D007)	2682 HP	operating manual	15.4 LB/H	BACT-PSD
OH-0375	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	11/07/2018		Emergency diesel-fired generator (P007)	2082 HP 2206 HP	Comply with NSPS 40 CFR 60 Subpart IIII	15.4 LB/H 12.64 LB/H	BACT-PSD BACT-PSD
OH-0375 OH-0375	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	11/07/2017		Emergency Diesel Generator Engine (P001) Emergency Diesel Fire Pump Engine (P002)	2206 HP 700 HP	Good combustion design	12.64 LB/H 4.01 LB/H	BACT-PSD BACT-PSD
OH-0375 OH-0374	GUERNSEY POWER STATION LLC	10/23/2017		Emergency Generators (2 identical, P004 and P005)	2206 HP	Good combustion design Certified to the meet the emissions standards in 40 CFR	12.69 LB/H	BACT-PSD BACT-PSD
011-0374		10/25/2017	0/13/2013	energency cenerators (2 denated), 1004 and 1005)	2200 11	89.112 and 89.113 pursuant to 40 CFR 60.4205(b) and 60.4202(a)(2). Good combustion practices per the manufacturer's operatine manual.	12.05 (5)11	BACTIB
OH-0372	OREGON ENERGY CENTER	09/27/2017	6/19/2019	Emergency generator (P003)	1529 HP	State-of-the-art combustion design	8.8 LB/H	BACT-PSD
OH-0370	TRUMBULL ENERGY CENTER	09/07/2017		Emergency generator (P003)	1529 HP	State-of-the-art combustion design	8.8 LB/H	BACT-PSD
OH-0368	PALLAS NITROGEN LLC	04/19/2017		Emergency Generator (P009)	5000 HP	good combustion control and operating practices and engines designed to meet the stands of 40 CFR Part 60, Subpart IIII	28.8 LB/H	BACT-PSD
OH-0367	SOUTH FIELD ENERGY LLC	09/23/2016	6/19/2019	Emergency generator (P003)	2947 HP	State-of-the-art combustion design	16.96 LB/H	BACT-PSD
OH-0366	CLEAN ENERGY FUTURE - LORDSTOWN, LLC	08/25/2015		Emergency generator (P003)	2346 HP	State-of-the-art combustion design	13.5 LB/H	BACT-PSD
LA-0331	CALCASIEU PASS LNG PROJECT	09/21/2018		Firewater Pumps	634 kW	Good Combustion and Operating Practices.	3.7 G/HP-H	BACT-PSD BACT-PSD
LA-0331 LA-0331	CALCASIEU PASS LING PROJECT	09/21/2018		Large Emergency Engines (>50kW)	5364 HP	Good Combustion and Operating Practices.	3.5 G/KW-H	BACT-PSD BACT-PSD
VA-0328	C4GT, LLC	04/26/2018		Emergency Diesel GEN	500 H/YR	good combustion practices and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur	2.6 G/HP H	BACT-PSD
		00/107/2010	c /a o /2014 0	DISCEL SIDED ENERGENCY CENTER TOD 2000 LV/ (4)	<u>^</u>	content of 15 ppmw.		
VA-0325	GREENSVILLE POWER STATION	06/17/2016		DIESEL-FIRED EMERGENCY GENERATOR 3000 kW (1)	0	Good Combustion Practices/Maintenance	3.5 G/KW	N/A BACT-PSD
VA-0321 OH-0363	BRUNSWICK COUNTY POWER STATION NTE OHIO, LLC	03/12/2013 11/05/2014	6/19/2019 4/1/2019	Emergency diesel generator- 2200 kW Emergency generator (P002)	500 hrs/yr 1100 KW	good combustion practices Emergency operation only, < 500 hours/year each for maintenance checks and readiness testing designed to	3.5 G/KW-HR 8.49 LB/H	BACT-PSD BACT-PSD
OH-0360	CARROLL COUNTY ENERGY	11/05/2013	4/1/2019	Emergency generator (P003)	1112 KW	meet NSPS Subpart IIII Purchased certified to the standards in NSPS Subpart IIII	8.57 LB/H	BACT-PSD
*PA-0313		07/27/2017	3/26/2019		2500 bhp		3.5 G	
*PA-0313 II-0129	CPV THREE RIVERS ENERGY CENTER	07/30/2017		Emergency Generator Emergency Engines	2500 bhp 0		3.5 G 0	BACT-PSD
MI-0435					-	State of the out combustion design	•	BACT-PSD BACT-PSD
MI-0435 MI-0433	BELLE RIVER COMBINED CYCLE POWER PLANT	07/16/2018		EUEMENGINE: Emergency engine	2 MW	State of the art combustion design.	3.5 G/KW-H	
MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	06/29/2018	2/19/2019	EUEMENGINE (North Plant): Emergency Engine EUEMENGINE (South Plant): Emergency Engine	1341 HP 1341 HP	Good combustion practices and meeting NSPS Subpart IIII requirements. Good combustion practices and meeting NSPS IIII	3.5 G/KW-H 3.5 G/KW-H	BACT-PSD BACT-PSD
						requirements.		
PA-0311	MOXIE FREEDOM GENERATION PLANT	09/01/2015		Emergency Generator	0		0.26 G/HP-HR	BACT-PSD
PA-0311	MOXIE FREEDOM GENERATION PLANT	09/01/2015		Fire Pump Engine	0		1 G/HP-HR	BACT-PSD
PA-0309	LACKAWANNA ENERGY CTR/JESSUP	12/23/2015		2000 kW Emergency Generator	0		0.6 GM/HP-HR	BACT-PSD
PA-0310	CPV FAIRVIEW ENERGY CENTER	09/02/2016	12/21/2018		0	COOD COMPLICTION PRACTICES AND DECICIES TO	2.61 G/BHP-HR	BACT-PSD
MD-0044		06/09/2014	5/14/2018		1550 HP	GOOD COMBUSTION PRACTICES AND DESIGNED TO MEET EMISSION LIMIT	2.6 G/HP-H	BACT-PSD
LA-0323	MONSANTO LULING PLANT	01/09/2017	5/11/2018	Fire Water Diesel Pump No. 3 Engine	600 hp	Proper operation and limits on hours operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0	BACT-PSD

RBLCID	Facility Name	Permit Issuance Date	Date Last Updated	Process Name	Throughput	Control Method Description	Emission Limit	EMISSION_LIMIT_1_	A\ BASIS
LA-0323	MONSANTO LULING PLANT	01/09/2017	5/11/2018	Fire Water Diesel Pump No. 4 Engine	600 hp	Proper operation and limits on hours of operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	(	0	BACT-PSD
WV-0025	MOUNDSVILLE COMBINED CYCLE POWER PLANT	11/21/2014	5/1/2018	Emergency Generator	2015.7 HP	Subpart III	(	n	BACT-PSD
NI-0084	PSEG FOSSIL LLC SEWAREN GENERATING STATION	03/10/2014		Diesel Fired Emergency Generator	44 H/YR	use of ultra low sulfur diesel oil a clean burning fuel		5 5 LB/H	BACT-PSD BACT-PSD
MI-0423	INDECK NILES, LLC	01/04/2017		EUEMENGINE (Diesel fuel emergency engine)	22.68 MMBTU/H	Good combustion practices and meeting NSPS Subpart IIII requirements.		5 G/KW-H	BACT-PSD
MI-0425	GRAYLING PARTICLEBOARD	05/09/2017	11/15/2017	EUEMRGRICE1 in FGRICE (Emergency diesel generator engine)	500 H/YR	Good design and combustion practices.	3.5	5 G/KW-H	BACT-PSD
MI-0425	GRAYLING PARTICLEBOARD	05/09/2017		EUEMRGRICE2 in FGRICE (Emergency Diesel Generator Engine)	500 H/YR	Good design and combustion practices.	3.5	5 G/KW-H	BACT-PSD
MI-0425	GRAYLING PARTICLEBOARD	05/09/2017	11/15/2017	EUFIREPUMP in FGRICE (Diesel fire pump engine)	500 H/YR	Good design and combustion practices.	3.5	5 G/KW-H	BACT-PSD
NY-0104	CPV VALLEY ENERGY CENTER	08/01/2013		Emergency generator	0	Good combustion practice.		5 G/BHP-H	BACT-PSD
NY-0103	CRICKET VALLEY ENERGY CENTER	02/03/2016		Black start generator	3000 KW	Compliance demonstrated with vendor emission certification and adherence to vendor-specified maintenance recommendations.		6 G/ВНР-Н	BACT-PSD
IN-0263	MIDWEST FERTILIZER COMPANY LLC	03/23/2017	8/22/2017	EMERGENCY GENERATORS (EU014A AND EU-014B)	3600 HP EACH	GOOD COMBUSTION PRACTICES	2.6	1 G/HP-H EACH	BACT-PSD
MI-0421	GRAYLING PARTICLEBOARD	08/26/2016		Emergency Diesel Generator Engine (EUEMRGRICE in FGRICE)	500 H/YR	Good design and combustion practices.	3.5	5 G/KW-H	BACT-PSD
MI-0421	GRAYLING PARTICLEBOARD	08/26/2016	7/20/2017		500 H/YR	Good design and combustion practices.	3.5	5 G/KW-H	BACT-PSD
LA-0318	FLOPAM FACILITY	01/07/2016			0	Complying with 40 CFR 60 Subpart IIII	(		BACT-PSD
LA-0317	METHANEX - GEISMAR METHANOL PLANT	12/22/2016			0	complying with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	(	D	BACT-PSD
LA-0317	METHANEX - GEISMAR METHANOL PLANT	12/22/2016			896 hp (each)	complying with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	(		BACT-PSD
LA-0316	CAMERON LNG FACILITY	02/17/2017	4/28/2017	emergency generator engines (6 units)	3353 hp	Complying with 40 CFR 60 Subpart IIII	(	-	BACT-PSD
LA-0313	ST. CHARLES POWER STATION	08/31/2016	4/28/2017	SCPS Emergency Diesel Generator 1	2584 HP	Compliance with NESHAP 40 CFR 63 Subpart ZZZZ and NSPS 40 CFR 60 Subpart IIII, and good combustion practices (use of ultra-low sulfur diesel fuel).	14.83	1 LB/H	BACT-PSD
LA-0309	BENTELER STEEL TUBE FACILITY	06/04/2015	4/28/2017	Emergency Generator Engines	2922 hp (each)	Complying with 40 CFR 60 Subpart IIII	(	D	BACT-PSD
LA-0307	MAGNOLIA LNG FACILITY	03/21/2016	4/28/2017	•	0	good combustion practices, Use ultra low sulfur diesel, and comply with 40 CFR 60 Subpart IIII	(	-	BACT-PSD
LA-0305	LAKE CHARLES METHANOL FACILITY	06/30/2016		Diesel Engines (Emergency)	4023 hp	Complying with 40 CFR 60 Subpart IIII	(	-	BACT-PSD
LA-0296	LAKE CHARLES CHEMICAL COMPLEX LDPE UNIT	05/23/2014	4/28/2017	Emergency Diesel Generators (EQTs 622, 671, 773, 850, 994, 995, 996, 1033,	2682 HP	Compliance with 40 CFR 60 Subpart IIII; operating the engine in accordance with the engine manufacturera <sup>CW</sup> instructions and/or written procedures (consistent with safe operation) designed to maximize combustion efficiency and minimize fuel usage.	s	3 LB/HR	BACT-PSD
LA-0288	LAKE CHARLES CHEMICAL COMPLEX	05/23/2014	9/14/2016	Emergency Diesel Generators (EQT 629, 639, 838, 966, & 1264)	2682 HP	Comply with 40 CFR 60 Subpart IIII; operate the engine in accordance with the engine manufacturerâC <sup>w</sup> s instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.	15.4	3 LB/HR	BACT-PSD
OK-0154	MOORELAND GENERATING STA	07/02/2013	7/29/2016	DIESEL-FIRED EMERGENCY GENERATOR ENGINE	1341 HP	COMBUSTION CONTROL.	0.00	1 LB/HR	BACT-PSD
TX-0799	BEAUMONT TERMINAL	06/08/2016	7/7/2016	Fire pump engines	0	Equipment specifications and good combustion practices. Operation limited to 100 hours per year.		5 LB/HP-HR	BACT-PSD
MI-0406	RENAISSANCE POWER LLC	11/01/2013	7/7/2016	FG-EMGEN7-8; Two (2) 1,000kW diesel-fueled emergency reciprocating inter	1000 kW	Good combustion practices.	2.6	6 G/B-HP-H	BACT-PSD
FL-0356	OKEECHOBEE CLEAN ENERGY CENTER	03/09/2016	7/6/2016	Three 3300-kW ULSD emergency generators	0	Use of clean engine	3.5	5 G/KW-HR	BACT-PSD
FL-0347	ANADARKO PETROLEUM CORPORATION - EGOM	09/16/2014		Main Propulsion Generator Diesel Engines	9910 hp	Use of good combustion practices based on the most recent manufacturer's specifications issued for engines and with turbocharger, aftercooler, and high injection pressure		B G/KW-H	BACT-PSD
FL-0347	ANADARKO PETROLEUM CORPORATION - EGOM	09/16/2014	7/6/2016	Emergency Diesel Engine	3300 hp	Use of good combustion practices based on the most recent manufacturer's specifications issued for engines and with turbocharger, aftercooler, and high injection pressure	(	D	BACT-PSD
AL-0301	NUCOR STEEL TUSCALOOSA, INC.	07/22/2014	6/8/2016	DIESEL FIRED EMERGENCY GENERATOR	800 HP		0.005	5 LB/HP-H	BACT-PSD
FL-0346	LAUDERDALE PLANT	04/22/2014		Four 3100 kW black start emergency generators		e Good combustion practice		5 GRAMS PER KW-HR	BACT-PSD
IL-0114	CRONUS CHEMICALS, LLC	09/05/2014	5/5/2016	Emergency Generator	3755 HP	Tier IV standards for non-road engines at 40 CFR 1039.102, Table 7.	3.5	5 G/KW-H	BACT-PSD
PR-0009	ENERGY ANSWERS ARECIBO PUERTO RICO RENEWABLE ENERGY			Emergency Diesel Generator	0			5 G/BHP-H	BACT-PSD
MA-0039	SALEM HARBOR STATION REDEVELOPMENT	01/30/2014		Emergency Engine/Generator	7.4 MMBTU/H			5 GM/BHP-H	OTHER CASE
IN-0180	MIDWEST FERTILIZER CORPORATION	06/04/2014		DIESEL FIRED EMERGENCY GENERATOR	3600 BHP	GOOD COMBUSTION PRACTICES		1 G/B-HP-H	BACT-PSD
IN-0179	OHIO VALLEY RESOURCES, LLC	09/25/2013		DIESEL-FIRED EMERGENCY GENERATOR	4690 B-HP	GOOD COMBUSTION PRACTICES		1 G/B-HP-H	BACT-PSD
IN-0173 LA-0272	MIDWEST FERTILIZER CORPORATION AMMONIA PRODUCTION FACILITY	06/04/2014 03/27/2013		DIESEL FIRED EMERGENCY GENERATOR EMERGENCY DIESEL GENERATOR (2205-B)	3600 BHP 1200 HP	GOOD COMBUSTION PRACTICES Compliance with 40 CFR 60 Subpart IIII; good combustion practices.	2.6:	1 G/BHP-H D	BACT-PSD BACT-PSD
OH-0355	GENERAL ELECTRIC AVIATION, EVENDALE PLANT	05/07/2013	5/4/2016	Test Cell 1 for Aircraft Engines and Turbines	0		5.4	1 LB/MMBTU	N/A
OH-0355	GENERAL ELECTRIC AVIATION, EVENDALE PLANT	05/07/2013	5/4/2016	Test Cell 2 for Aircraft Engines and Turbines	0			3 LB/MMBTU	N/A
IA-0106	CF INDUSTRIES NITROGEN, LLC - PORT NEAL NITROGEN COMPLE	07/12/2013	5/4/2016	Emergency Generators	180 GAL/H	good combustion practices		5 G/KW-H	BACT-PSD
OH-0352	OREGON CLEAN ENERGY CENTER	06/18/2013	5/4/2016	Emergency generator	2250 KW	Purchased certified to the standards in NSPS Subpart III		5 LB/H	BACT-PSD
AK-0082	POINT THOMSON PRODUCTION FACILITY	01/23/2015	2/19/2016	Emergency Camp Generators	2695 hp		2.6	6 GRAMS/HP-H	BACT-PSD
AK-0082	POINT THOMSON PRODUCTION FACILITY	01/23/2015	2/19/2016	Fine Water Pumps	610 hp			6 GRAMS/HP-H	BACT-PSD
AK-0082	POINT THOMSON PRODUCTION FACILITY	01/23/2015	2/19/2016	Bulk Tank Generator Engines	891 hp			6 GRAMS/HP-H	BACT-PSD

RBLCID	Facility Name	Issuance Date	Updated	Process Name	Throughput	Control Method Description	Emission Limit EMISS	SION_LIMIT_1_A\ BASIS
OH-0387	INTEL OHIO SITE	09/20/2022		5,051 bhp (3,768 kWm) Diesel-Fired Emergency Generators: P001 through P	5051 HP	Certified to meet Tier 2 standards and good combustion	0.4 G/KW	
						practices		
MI-0452	MEC SOUTH, LLC	06/23/2022	4/25/2023	EUEMENGINE (South Plant): Emergency engine	1341 HP	Good combustion practices.	0.86 LB/H	BACT-PSD
MI-0451	MEC NORTH, LLC	06/23/2022	4/25/2023	EUEMENGINE (North Plant): Emergency engine	1341 HP	Good combustion practices	0.86 LB/H	BACT-PSD
AR-0177	NUCOR STEEL ARKANSAS	11/21/2022	4/25/2023	SN-230 Galvanizing Line No, 2 Emergency Generator	3634 Horsepower		0.8 G/KW	-HR BACT-PSD
LA-0390	DERIDDER SAWMILL	05/10/2022		GEN-1 - Emergency Generator No. 1	750 horsepower	Good combustion practices and maintenance and	1.98 LB/HR	
		,,	,,			compliance with applicable 40 CFR 60 Subpart JJJJ limitation for VOC.	,	
LA-0390	DERIDDER SAWMILL	05/10/2022	4/25/2023	GEN-2 - Emergency Generator No. 2	750 horsepower	Good combustion practices and maintenance and compliance with applicable 40 CFR 60 Subpart JJJJ limitation for VOC	1.98 LB/HR	BACT-PSD
LA-0390	DERIDDER SAWMILL	05/10/2022	4/25/2023	GEN-3 - Emergency Generator No. 2	750 horsepower	Good Combustion practices and maintenance and compliance with applicable 40 CFR 60 Subpart JJJJ limitations for VOC	1.98 LB/HR	BACT-PSD
TX-0955	INEOS OLIGOMERS CHOCOLATE BAYOU	03/14/2023	4/12/2023	Engine Emergency Generator	0	TIER III	0	LAFR
*IN-0359	NUCOR STEEL	03/30/2023	4/11/2023	Emergency Generator (CC-GEN1)	3000 Horsepower	certified engine	0.32 G/HP-	HR BACT-PSD
*TX-0939	ORANGE COUNTY ADVANCED POWER STATION	03/13/2023	4/3/2023	EMERGENCY GENERATOR	18.7 MMBTU/HR	GOOD COMBUSTION PRACTICES, LIMITED TO 100 HR/YR	0.001 LB/HP	
1X-0939	OKANGE COONTLADVANCED FOWER STATION	03/13/2023	4/3/2023	EMERGENCI GENERATOR	10.7 WIWBTO/HK	GOOD COMBOSTION PRACTICES, EIMITED TO 100 HK/ HK	0.001 LB/HP	IK BACI-F3D
*LA-0391	MAGNOLIA POWER GENERATING STATION UNIT 1	06/03/2022	3/6/2023	Emergency Diesel Generator Engine	2937 hp	Compliance with 40 CFR 60 Subpart IIII standards, good combustion practices, and the use of ultra-low sulfur diesel fuel.	4.8 G/HP-	HR BACT-PSD
KS-0036	WESTAR ENERGY - EMPORIA ENERGY CENTER	03/18/2013	3/1/2023	Caterpillar C18DITA Diesel Engine Generator	900 BHP	utilize efficient combustion/design technology	0.015 G/BHI	P-H BACT-PSD
LA-0388	LACC LLC US - ETHYLENE PLANT	02/25/2022	12/12/2022		575 hp	Compliance with 40 CFR 60 Subpart IIII	0.32 LB/HR	
*NE-0064	NORFOLK CRUSH, LLC	11/21/2022		Emergency Fire Water Pump Engine 1	510 hp		0.62 G/HP-	
WI-0300	NEMADJI TRAIL ENERGY CENTER	09/01/2020		Emergency Diesel Generator (P07)	1490 HP	Operation limited to 500 hours/year and operate and	0.32 G/HP-	
WI-0300		03/01/2020	5/10/2022		1450 115	maintain generator according to the manufacturer's recommendations	0.52 0/11-	n BACI-F3D
WI-0297	GREEN BAY PACKAGING- MILL DIVISION	12/10/2019	9/16/2022	Diesel-Fired Emergency Fire Pump (P36)	510 HP		200 H/Y	BACT-PSD
AK-0088	LIQUEFACTION PLANT	07/07/2022		Diesel Fire Pump Engine	27.9 Gal/hr	Oxidation Catalyst; Limited Operation; 40 CFR 60 Subpart IIII	0.19 G/HP-	HR BACT-PSD
IN-0324	MIDWEST FERTILIZER COMPANY LLC	05/06/2022	8/16/2022	emergency generator EU 014a	3600 HP		0.35 G/HP-	-HR BACT-PSD
IN-0324	MIDWEST FERTILIZER COMPANY LLC	05/06/2022	8/16/2022	fire water pump EU-015	500 HP		0.141 G/HP-	-HR BACT-PSD
AK-0085	GAS TREATMENT PLANT	08/13/2020	8/16/2022	One (1) Black Start Generator Engine	186.6 gph	Oxidation Catalyst, Good combustion practices, and limit operation to 500 hours per year.	0.18 G/HP-	HR BACT-PSD
*WV-0033	MAIDSVILLE	01/05/2022	6/28/2022	Emergency Generator	2100 hp	Good Combustion Practices w/ OxCat. Applicant did not justify why an oxcat is infeasible for an emergency engine	0.46 LB/HR	BACT-PSD
*WV-0033	MAIDSVILLE	01/05/2022	6/28/2022	Fire Water Pump	240 bhp	Good Combustion Practices w/ OxCat. Applicant did not justify why an oxcat is infeasible for an emergency engine	1.59 LB/HR	BACT-PSD
TX-0933	NACERO PENWELL FACILITY	11/17/2021	3/8/2022	Emergency Generators	0	limited to 100 hours per year of non-emergency operation. EPA Tier 2 (40 CFR ŧ 1039.101) exhaust emission standards	0	BACT-PSD
TX-0915	UNIT 5	03/17/2021	3/8/2022	DIESEL GENERATOR	0		0.5 G/HP	HR BACT-PSD
						LIMITED 500 HR/YR OPERATION		
WI-0286	SIO INTERNATIONAL WISCONSIN, INCENERGY PLANT	04/24/2018	3/8/2022	P42 -Diesel Fired Emergency Generator	0	Good Combustion Practices	0.56 G/KW	
WI-0284	SIO INTERNATIONAL WISCONSIN, INCENERGY PLANT	04/24/2018	3/8/2022	Diesel-Fired Emergency Generators	0	Good Combustion Practices	0.56 G/KW	
LA-0383	LAKE CHARLES LNG EXPORT TERMINAL	09/03/2020	3/4/2022	Emergency Engines (EQT0011 - EQT0016)	0	Comply with 40 CFR 60 Subpart III	0	BACT-PSD
LA-0382	BIG LAKE FUELS METHANOL PLANT	04/25/2019	3/4/2022	Emergency Engines (EQT0014 - EQT0017)	0	Comply with standards of 40 CFR 60 Subpart IIII	0	BACT-PSD
TX-0904	MOTIVA POLYETHYLENE MANUFACTURING COMPLEX	09/09/2020	12/1/2021	EMERGENCY GENERATOR	0	100 HOURS OPERATIONS, Tier 4 exhaust emission standards specified in 40 CFR § 1039.101	0	BACT-PSD
OK-0181	WILDHORSE TERMINAL	09/11/2019	9/10/2021	EMERGENCY USE ENGINES > 500 HP	0	Good combustion practices. Certified to meet EPA Tier 3 engine standards. Each engine shall be limited to	3 GM/H	IP-HR BACT-PSD
TX-0905	DIAMOND GREEN DIESEL PORT ARTHUR FACILITY	09/16/2020	9/10/2021	EMERGENCY GENERATOR	0	operate not more than 500 hours per year. limited to 100 hours per year of non-emergency operation	0	BACT-PSD
SC-0193	MERCEDES BENZ VANS. LLC	04/15/2016	9/10/2021	Emergency Generators and Fire Pump	1500 hp	Must meet the standards of 40 CFR 60, Subpart III	100 HR/YF	BACT-PSD
LA-0364	FG LA COMPLEX	01/06/2020	8/9/2021	Emergency Generator Diesel Engines	550 hp	Compliance with the limitations imposed by 40 CFR 63 Subpart III and operating the engine in accordance with the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.	0	BACT-PSD
LA-0364	FG LA COMPLEX	01/06/2020	8/9/2021	Emergency Fire Water Pumps	550 hp	Compliance with the limitations imposed by 40 CFR 63 Subpart IIII and operating the engine in accordance with the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.	0	BACT-PSD
	THOMAS TOWNSHIP ENERGY, LLC	08/21/2019	8/9/2021	FGEMENGINE	1100 KW		0.86 LB/H	BACT-PSD
MI-0442	ANT CENTRAL LITURY DUANT	06/21/2017	8/9/2021	Cold Start Engine	19.04 MMBTU/HR		0.85 LB/HR	OTHER CAS
MI-0442 MA-0043	MIT CENTRAL UTILITY PLANT	00/21/201/	-,-,					
	BENTELER STEEL TUBE FACILITY	03/28/2018	8/6/2021	emergency generators (3 units) EQT0039, EQT0040, EQT0041	0	Comply with 40 CFR 60 Subpart IIII	0	BACT-PSD
MA-0043						Comply with 40 CFR 60 Subpart IIII Comply with standards of 40 CFR 60 Subpart JJJJ		BACT-PSD

RBLCID	Facility Name	Permit Issuance Date	Date Last Updated	Process Name	Throughput	Control Method Description	Emission Limit EMISS	SION_LIMIT_1_A\ BASIS
IN-0317	RIVERVIEW ENERGY CORPORATION	06/11/2019	-	Emergency fire pump EU-6008	750 HP	Engine that complies with Table 4 to Subpart IIII of Part	4 G/KW	
AR-0161	SUN BIO MATERIAL COMPANY	09/23/2019	5/5/2021	Emergency Engines	0	60 Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	1.9 G/KW	-HR BACT-PSD
*LA-0315	G2G PLANT	05/23/2014	4/5/2021	Emergency Diesel Generator 1	5364 HP	Compliance with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	3.86 LB/H	BACT-PSD
'LA-0315	G2G PLANT	05/23/2014	4/5/2021	Emergency Diesel Generator 2	5364 HP	Compliance with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	3.86 LB/H	BACT-PSD
*LA-0315	G2G PLANT	05/23/2014	4/5/2021	Fire Pump Diesel Engine 1	751 HP	Compliance with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	0.34 LB/H	BACT-PSD
'LA-0315	G2G PLANT	05/23/2014	4/5/2021	Fire Pump Diesel Engine 2	751 HP	Compliance with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	0.34 LB/H	BACT-PSD
(Y-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021	EP 10-02 - North Water System Emergency Generator	2922 HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	BACT-PSD
KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021	EP 10-03 - South Water System Emergency Generator	2922 HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	BACT-PSD
KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020		EP 10-04 - Emergency Fire Water Pump	920 HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	BACT-PSD
(Y-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021	EP 10-07 - Air Separation Plant Emergency Generator	700 HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	BACT-PSD
КҮ-0110	NUCOR STEEL BRANDENBURG	07/23/2020		EP 10-01 - Caster Emergency Generator	2922 HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	BACT-PSD
	FRITZ WINTER NORTH AMERICA, LP	10/24/2016		Emergency Generators #1, #2, & #3 (EU72, EU73, & EU74)	53.6 gal/hr	The permittee shall prepare and maintain for EU72, EU73, and EU74, within 90 days of startur, a good combustion and operation practices plan (GCOP) that defines, measures and verifies the use of operational and design practices determined as BACT for minimizing CO, VOC, PM, PM10, and PM2.5 emissions. Any revisions requested by the Division shall be made and the plan shall be maintained on site. The permittee shall operate according to the provisions of this plan at all times, including periods of startup, shutdown, and malfunction. The plan shall be incorporated into the plant standard operating procedures (SOP) and shall be made available for the Division&T** inspection. The plan shall include, but not be limited to: i. A list of combustion optimization practices and a means of verifying the practices have occurred. ii. A list of combustion and operation practices to be used to lower energy consumption and a means of verifying the practices have occurred. iii. A list of the design choices determined to be BACT and verification that designs were implemented in the final construction.		HR (EU72 &EU73 BACT-PSD
TX-0888	ORANGE POLYETHYLENE PLANT	04/23/2020	11/12/2020	EMERGENCY GENERATORS & amp; FIRE WATER PUMP ENGINES	0	well-designed and properly maintained engines and each limited to 100 hours per year of non-emergency use.	0	BACT-PSD
TX-0879	MOTIVA PORT ARTHUR TERMINAL	02/19/2020	11/12/2020	Emergency Firewater Engine	0	USE: Meeting the requirements of 40 CFR Part 60, Subpart IIII Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs/yr of non- emergency operation. Have a non-resettable runtime meter.	. 0.1 G/HP	HR BACT-PSD
TX-0876	PORT ARTHUR ETHANE CRACKER UNIT	02/06/2020	11/12/2020	Emergency generator	0	Tier 4 exhaust emission standards specified in 40 CFR § 1039.101, limited to 100 hours per year of non- emergency operation	0	BACT-PSD
TX-0876	PORT ARTHUR ETHANE CRACKER UNIT	02/06/2020	11/12/2020	Emergency firewater pumps	0	Tier 3 exhaust emission standards specified in 40 CFR § 89.112, limited to 100 hours per year of non-emergency operation		BACT-PSD
TX-0872	CONDENSATE SPLITTER FACILITY	10/31/2019	11/12/2020	Emergency Generators	0	operation Limiting duration and frequency of generator use to 100 hr/yr. Good combustion practices will be used to reduce VOC including maintaining proper air-to-fuel ratio.		HR BACT-PSD
AR-0163	BIG RIVER STEEL LLC	06/09/2019	11/10/2020	Emergency Engines	0	Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	1.55 G/KW	-HR BACT-PSD
	ST. JAMES METHANOL PLANT ST. JAMES METHANOL PLANT DONLIN GOLD PROJECT HICKORY RUN ENERGY STATION PEONY CHEMICAL MANUFACTURING FACILITY	06/30/2017 06/30/2017 06/30/2017 04/23/2013 04/01/2015	5/1/2020 5/1/2020 4/16/2020 3/2/2020 1/31/2020	EMERGENCY GENERATOR	650 horsepower 1474 horsepower 143.5 MMBtu/hr 7.8 MMBTU/H 1500 hp	Compliance with NNSPS Subpart IIII Compliance with NSPS Subpart IIII Oxidation Catalyst and Good Combustion Practices Minimized hours of operations Tier II engine	0.13 LB/HR 0.04 LB/HR 0.21 G/KW 0.7 LB/H 0.7 LB/H	BACT-PSD
	TALLADEGA SAWMILL	12/18/2017		250 Hp Emergency CI, Diesel-fired RICE	0		0	N/A

0.1939         PTECX P	RBLCID	Facility Name	Permit Issuance Date	Date Last Updated	Process Name	Throughput	Control Method Description	Emission Limit EMISSION_LIMIT	1 AVBASIS
General Process Standard Construct         17/17/201 <th1< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>37.41 LB/H</th><th>BACT-PSD</th></th1<>								37.41 LB/H	BACT-PSD
On-1007         MARRIGON FORM         On-1007         MARRIGON FORM         On-1007         MARRIGON FORM         On-1007         MARRIGON FORM         On-1007         MARRIGON FORM         MARRIGO	011-0370		12/21/2010	0/15/2015	Emergency preservice denerator engine (1907)	5555 111	of 40 CFR Part 60, Subpart IIII, shall employ good combustion practices per the manufacturer's	57.42 20/11	DACT-15D
010000     MARGED NOVATE     04/20200     01/20200     Carged process decays (PRO)     2000     2000     Carged process decays (PRO)     2000     <	OH-0378	PTTGCA PETROCHEMICAL COMPLEX	12/21/2018	6/19/2019	1,000 kW Emergency Generators (P008 - P010)	1341 HP	combustion practices per the manufacturer's	14.96 LB/H	BACT-PSD
OH-100         LUMIN IDDE LIMING CLIMING LIMING	OH-0377	HARRISON POWER	04/19/2018	6/19/2019	Emergency Diesel Generator (P003)	1860 HP	Good combustion practices (ULSD) and compliance with	19.68 LB/H	BACT-PSD
Bit Bit         Business								24.71 LB/H	BACT-PSD
0H-672         OKEGON TREED YEARTS         09/277/027         6/19/2019         Encagency generator (POD)         529         File         SEGON TREED YEARTS         09/277/027         6/19/2019         Encagency generator (POD)         529         File         SEGON TREED YEARTS         09/27/2027         6/19/2019         Encagency generator (POD)         500         File         SEGON TREED YEARTS         09/27/2027         6/19/2019         Encagency generator (POD)         500         File         SEGON TREED YEARTS								4.97 LB/H	BACT-PSD
0-0000         0-10000         0-10000         0-10000         0-100000         0-100000000000000000000000000000000000	OH-0374	GUERNSEY POWER STATION LLC	10/23/2017	6/19/2019	Emergency Generators (2 identical, P004 and P005)	2206 HP	Good combustion practices per the manufacturer's	23.21 LB/H	BACT-PSD
Bulks NITGORN LLC         Pu/sh         Pu/sh         Purpage of comparison control and parating paraties and a compare disponent paraties and a com	OH-0372	OREGON ENERGY CENTER	09/27/2017	6/19/2019	Emergency generator (P003)	1529 HP	State-of-the-art combustion design	2 LB/H	BACT-PSD
Bit Select III         Control Field Design III         Control Field Design III         Super IIII         Super IIII         Super IIIII         Super IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	OH-0370	TRUMBULL ENERGY CENTER	09/07/2017	6/19/2019	Emergency generator (P003)	1529 HP	State-of-the-art combustion design	2 LB/H	BACT-PSD
0H-066         CLAN KREGY FUNCTION LCC         QLZ /2025         GAT /2025							engines designed to meet the stands of 40 CFR Part 60, Subpart IIII	1.6 LB/H	BACT-PSD
L4.331         CLC/SBU PASS ING FRODECT         09/12/2018         freadure Primps         634 kW         Good combustion and operating practices.           VA335         CLC/SBU PASS ING FRODECT         09/12/2018         freadure Primps         6430 kW         0							State-of-the-art combustion design	3.84 LB/H	BACT-PSD
Add State         CALCASEU PASS IN GROLECT         00/21/2013         Large time process (big Control 100 and control 100 an								3.1 LB/H	BACT-PSD
V-0302         GREENVLIE FOUNDE STATION         06/17/201         6/19/2010         015/2010         015/2010         011/20100         011/20100         011								0.44 G/HP-H	BACT-PSD
0-1030       CARBOL COUNT DERROY       1/10/201       4/1/201       Emegrang demator (POG3)       1112 KW       Pachased carlied to the standards in KSFS Subpart 1         ***0-031       IRST CLAULTY TISSUE LOCK NAVEN PLT       0/12/201       2/30/201       2/13/201       EUMANNUME regrency regine (Semator March 10, 12/12/201)       2/30/201       2/13/201       EUMANNUME regrency regine (Semator March 10, 12/12/201)       2/13/201       EUMANNUME regrency regine (Semator 10, 12/12/201)       2/13/201       EUMANNUME regrency regine (Semator 10, 12/12/201)       2/13/201       EUMANNUME regrency regine (Semator 10, 12/12/201)       2/13/201       EUMANNUME regrency regine (Semator 10, 12/12/201)       2/13/201       EUMANNUME regrency regine (Semator 10, 12/12/201)       2/13/201       EUMANNUM regrency regrency regine (Semator 10, 12/12/201)       0/12/12/2013       Fee Pump regine (Semator 10, 12/12/201)       0/12/12/2013       Fee Pump regine (Semator 10, 12/12/201)       0/12/12/2013       Emegrang (Genetator 10, 12/12/201)       Emegrang (Genetator 10, 12/12								0.79 G/KW-H 6.4 G/KW	BACT-PSD N/A
M-0433       SELLE BVRE COMBINED CYCLE POWER PLANT       07/15/2018       2/15/2018						-	Purchased certified to the standards in NSPS Subpart IIII	1.93 LB/H	BACT-PSD
Mi Holss         ELLE RIVER COMBRIED CYCLE POWER PLANT         07/16/2018         2/19/201         EV/LEMINING:: temegrory ongine         2 k/w         State of the art combustion design.           Mi Holss         Mi CK NORTH, LLC AND MEC SOUTH LLC         66/29/2018         2/19/2019         EV/LEMINING: Emergrory ongine         134.1 HP         God combustion practices.           Mi Holss         Mi CK NORTH, LLC AND MEC SOUTH LLC         66/29/2018         2/19/2019         EV/LEMINING: Emergrory Ongine         134.1 HP         God combustion practices.           Mi Holss         Mi CK NORTH, LLC AND MEC SOUTH LLC         66/29/2018         1/21/2018         Emergrory Ongine Generator         0           Mi Holss         Mi KK NORTH, LLC AND MEC SOUTH LLC         66/09/2014         1/21/2018         Emergrory Ongine Generator         0           Mi Holss         Mi Holss         66/09/2014         5/11/2018         Emergrory Ongine Generator         0	*PA-0212	FIRST OLIALITY TISSUE LOCK HAVEN DIT	07/27/2017	3/26/2010	Emergency Generator	2500 bbp		3.5 G	
M-H033         MEC KORTH, LCA MD MEC SOUTH LLC         06/29/2018         2/19/2018         2/19/2018         2/19/2018         Contrempeny Generator         1341 HP         Good combustion practices           M-033         MEC KORTH, LCA MD MEC SOUTH LLC         06/29/2018         1/19/2018         EURMENINE (Edu) MECHAND         0           PA-0311         MOXE FREEDOM GENERATION PLANT         09/01/2015         1/21/2018         EURMENINE (Edu) MECHAND         0           PA-0313         MOXE FREEDOM GENERATION PLANT         09/01/2015         1/21/2018         EURMENINE (Edu) MECHAND         0           PA-0314         MOXE FREEDOM GENERATION PLANT         09/01/2015         1/21/2018         EURA END         0         Good combustion practices           PA-0315         MICHANDAL         06/29/2017         5/11/2018         Emergency Generator         0         Good combustion practices           0K-0415         WILHORDE TEMINIAL         06/29/2017         5/11/2018         Emergency Generator         0         Good combustion practices         0           0K-0415         WILHORDE TEMINIAL         06/29/2017         5/11/2018         Emergency Generator         0         Good combustion practices           0K-0415         WILLE COMBINED CICLE PORTER         07/31/2018         5/11/2018         Emergency Generator							State of the art combustion design	1.89 LB/H	BACT-PSD
M-H033         MCC KORTH, LCAND MCS SOUTH LLC         O/5/3/2012         21/9/2019         UEUMENGINE [South Plant; Energinery Engine         1341 HP         God combustion practices           M-031         MOXEF FREEDOM GENERATION FLANT         0/1/2011         12/1/2018         Iree Pump Engine         0           M-0304         COXEF FREEDOM GENERATION FLANT         0/1/2012         12/1/2018         Iree Pump Engine         0           M-0304         COXEF POINT LNG TERMINAL         0/0/2/2012         5/1/2018         Intergency Generator         0           OK-017         WLDHORSE TERMINAL         0/0/2/2012         5/1/2018         Intergency Generator         0         God Combustion practices. Certified to meet PA File           V-0.004         FSG COMUNER VLLC COMBINED CVLE POWER PLANT         0/1/1/2013         5/1/2018         Fire Pump Engine         5.0 hp         God Combustion practices. Certified to meet PA File           V-0.004         FSG COMURE VLLE COMBINED CVLE POWER PLANT         1/1/1/2018         Fire Pump Engine         5.0 hp         God Combustion practices.         0         God Combustion practices.           V-0.004         FSG COMUNE PLANT         1/1/2/2018         Fire Pump Engine         God Combustion practices.         God Combustion practices.           V-0.004         FSG COMUNE PLANT         1/1/2/2017         Fire Pump E								0.86 LB/H	BACT-PSD BACT-PSD
PA-031       MOXE FREEDOM GENERATION FANT       0/0/1/2015       12/2/2018       Fureymore Generator       0         PA-031       MOXE FREEDOM GENERATION FANT       0/0/1/2015       12/2/2018       Fureymore Generator       0         PA-038       MOXE FREEDOM GENERATION FANT       0/0/1/2015       12/2/2018       Fureymore Generator       0         PA-038       COVE FORTI ING TERMINAL       06/09/2017       5/14/2018       EMERGENCY GENERATOR       0       DESGRED TO ACHIEVE EMISSION LIMIT         0K-0175       WILDHORSE TERMINAL       06/29/2017       5/11/2018       Emergency Use Engines > 500 HP       0       Good combustion practices. Certified to meet PA Tie engines > 500 HP       0       Good combustion practices. Certified to meet PA Tie engine figure Generator       6       0       Good combustion practices. Certified to meet PA Tie engines > 500 HP       0       Good combustion practices. Certified to meet PA Tie engines figure Generator       6       Good combustion practices. Certified to meet PA Tie engines Generator       6       Good combustion practices. Certified to meet PA Tie engines Generator       6       Good combustion practices. Certified to meet PA Tie engines Generator       6       Good combustion practices. Certified to meet PA Tie engines Generator       6       Good combustion practices. Certified to meet PA Tie engines Generator       6       Good combustion practices. Certified to meeet PA Tie engines Generator       6								0.86 LB/H	BACT-PSD
PA-0311       MOXE FREEDOM GENERATION FLANT       09/01/2015       12/21/2018       Time Pump Engine       0         PA-0304       LCXEWANNAN KENERGY CTR/EISSUP       12/21/2018       20/01/21/2018       EMERGENCY GENERATOR       0         PA-0304       LCXEWANNAN KENERGY CTR/EISSUP       12/21/2018       EMERGENCY GENERATOR       1550 HP       USE ONLY ULSD, GODD COMBUSTON PRACTICES, ARE DESING TO A COMBUSTON PRACTICE								0.02 G/HP-HR	LAER
NP-040     CVX POINT ING TERMINAL     06/09/204     5/14/201     ENGRGENCY GENERATOR     1550 HP     USE ONLY ULSD, GODD COMBUSTION PRACTICES, AND DESIGNED ULMT       06-017     WILDHORSE TERMINAL     06/29/2017     5/11/2018     Emergency Use Engines > 500 HP     0     0     God combustion practices, Certified to meet FA Tile engine trainands, Shall be limited to one tFA Tile engine trainands, Shall be limited to meet FA Tile engine trainand adhetene to meet FA Tile engine trainands, Shall be limited tot	PA-0311	MOXIE FREEDOM GENERATION PLANT				0		0.2 G/HP-HR	LAER
OK-0175       WILDHORSE TERMINAL       06/29/2017       \$/11/2018       Emergency Use Engines > 500 HP       0       God combustion practices. Certified to operate at no motion than 500 hr/yr.         0K-0155       NORTHSTAR AGNI IND ENID       07/31/2013       \$/11/2018       File Pump Engine       550 hp       God Combustion practices. Certified to operate at no motion than 500 hr/yr.         0N-0368       PSEG FOSSI LLG SEWARG GENERATING STATION       01/21/2014       \$/11/2018       Emergency Generator       2015.7 HP       God Combustion practices.         MI-0428       INDECK NILES, LLC       01/04/2017       3/2/2018       EUEMENINE (Diesel fried Emergency Generator       God combustion practice.         NY-0108       PSEG FOSSI LLC SEWARG GENERATING STATION       01/04/2017       3/2/2018       EUEMENINE (Diesel fried Emergency engine)       22.66 MMBTU/H       Good combustion practice.         NY-0105       OF/X4LEY ENERGY CENTER       02/03/2015       9/28/2017       Emergency Generator       0       Good combustion practice.         IN-0263       MIOWEST FERTULZER COMPANY LLC       03/23/2017       Bleck Stat generator       Good combustion practice.       Compliante ence to and/or specified maritematice and brain the and/or emission certification and adbetererate to and/or specified maritematice and brain the and/or emergency generator no spine (Eurotication and adbetererate to and/or specified maritematice and/or emission certification and adbetererate to and	PA-0309	LACKAWANNA ENERGY CTR/JESSUP	12/23/2015	12/21/2018	2000 kW Emergency Generator	0		0.22 GM/HP-HR	LAER
OK-0156     NORTHSTAR AGRI IND ENID     07/31/2013     5/11/2018     Fire Pump Engine     550 hp     Good Combustion       NV-0025     MOUNDSVILLE COMMENDE OCUTE POWER PLANT     11/21/2018     Fire Pump Engine     500 hp     Good Combustion       NV-0026     MOUNDSVILLE COMMENDE OCUTE POWER PLANT     03/10/2016     4/17/2018     Diesel Fired Emergency Generator     2015.7 hp     good Combustion       NV-026     MI-0423     INDECK NILES, LLC     01/04/2017     3/8/2018     EUEMENGINE (Diesel fuel emergency engine)     22.68 MMBTU/H     Good combustion practice.       NV-010     OV/LLEY NERKS CENTER     0/10/2016     9/28/2017     EUEMENGINE (Diesel fuel emergency engine)     22.68 MMBTU/H     Good combustion practice.       NV-010     GOV LLEY NERKS CENTER     0/2/03/2016     9/28/2017     Emergency Generator     0     Good combustion practice.       NV-010     GOV LLEY NERKS CENTER     0/2/32/2017     Birke start generator     Good combustion practice.     Compliance demonstrated with vendor emission file in anterence vender data file in anterence vender data file.       NV-010     GOV ALLEY NERKS CENTER     0/3/23/2017     8/22/2017     EMERGENCY GENERATORS (EU014A AND EU-0148)     Good On MUSION PACICIES       LA-0315     ALKER CHAREN LUR FALLEY NERGY CENTER     0/3/23/2017     8/22/2017     EMERGENCY GENERATORS (EU014A AND EU-0148)     Good On MUSION PACICIES </td <td>MD-0044</td> <td>COVE POINT LNG TERMINAL</td> <td>06/09/2014</td> <td>5/14/2018</td> <td>EMERGENCY GENERATOR</td> <td>1550 HP</td> <td>USE ONLY ULSD, GOOD COMBUSTION PRACTICES, AND DESIGNED TO ACHIEVE EMISSION LIMIT</td> <td>4.8 G/HP-H</td> <td>LAER</td>	MD-0044	COVE POINT LNG TERMINAL	06/09/2014	5/14/2018	EMERGENCY GENERATOR	1550 HP	USE ONLY ULSD, GOOD COMBUSTION PRACTICES, AND DESIGNED TO ACHIEVE EMISSION LIMIT	4.8 G/HP-H	LAER
WV-002     MOUNDSULE COMBINED CYCLE POWER PLANT     1/1/21/2014     5/1/2018     Bergency Generator     2015.7 HP       W-004     PSEG FOSSIL LLC SEWAREN GENERATING STATION     0/10/2016     4/17/2018     Diesel Fired Emergency Generator     44 HYR     up of ULSD acta huming fuel, and limited hours of aperation       MI-0423     INDECK NILES, LLC     0/10/2017     3/8/2018     EUEMENGINE (Diesel fuel emergency engine)     22.68 MMBTU/H     Good combustion practices.       W-0327     PERDUE GRAIN AND OLSEED, LLC     0/11/2/107     1/1/2/107     II/2/107     III/2/107     IIII/2/107     IIII/2/107     IIII/2/107     IIII/2/107     IIII/2/107     IIII/2/107     IIII/2/107     IIII/2/107     IIII/2/107     IIIII/	OK-0175	WILDHORSE TERMINAL	06/29/2017	5/11/2018	Emergency Use Engines > 500 HP	0	Good combustion practices. Certified to meet EPA Tier 3 engine standards. Shall be limited to operate at no more than 500 hr/yr.	3 GM/HP-HR	BACT-PSD
NJ-084     PSEG FOSSIL LLC SEWAREN GENERATING STATION     03/10/2016     4/17/2018     Diese Fired Emergency Generator     4 4 H/YR     use of UISD a clean burning fuel, and limited hours of operation       MI-0423     INDECK NILES, LLC     01/04/2017     3/8/2018     EUEMENGINE (Diesel fuel emergency engine)     22.68     MMBTU/H     Good combustion practices.       VA-0327     PERDUE GRAIN AND DILSEED, LLC     01/04/2017     3/8/2018     EUEMENGINE (Diesel fuel emergency Generator     0       NY-0104     CYV ALLEY ENERGY CENTER     02/03/2016     9/28/2017     Emergency Generator     0     Good combustion practice.       NY-0103     CRICKET VALLEY ENERGY CENTER     02/03/2016     9/28/2017     Black start generator     0     Complication and anternec to vendous empective insison certainance recommendatores.       IN-0263     MIDWEST FERTILIZER COMPANY LLC     01/07/2016     4/28/2017     Diesel Engines     0     Compling with 40 CFR 60 Subpart III       LA-0316     FLOPAM FACILITY     01/07/2016     4/28/2017     Diesel Engines     0     Compling with 40 CFR 60 Subpart III       LA-0309     BENTELER STELE TUBE FACILITY     03/01/2016     4/28/2017     Diesel Engines     0     Compling with 40 CFR 60 Subpart III       LA-0307     MAGNOLIA LNG FACILITY     03/21/2016     4/28/2017     Diesel Engines     0     Compling with 40 CFR 60 Subpart III<	OK-0156	NORTHSTAR AGRI IND ENID	07/31/2013	5/11/2018	Fire Pump Engine	550 hp	Good Combustion	0.35 LB/MMBTU	BACT-PSD
MI-0423INDECK NILES, LLC01/04/20173/8/2018EUEMENGINE (Diesel fuele mergency engine)22.68MMBTU/HVA-0327PERDUE GRAIN AND OLISEED, LLC07/12/201711/2/2017Emergency generator0Good combustion practices.NY-0104CPV VALLEY ENERGY CENTER08/01/20139/28/2017Emergency generator0Good combustion practice.NY-0103CRICKET VALLEY ENERGY CENTER02/03/20169/28/2017Black start generator0Good combustion practice.IN-0263MIDWEST FERTILIZER COMPANY LLC03/23/20169/28/2017EMERGENCY GENERATORS (EU014A AND EU-014B)3600 HP EACHGOOD Combustion practice.IN-0263MIDWEST FERTILIZER COMPANY LLC03/23/20178/22/2017EMERGENCY GENERATORS (EU014A AND EU-014B)3600 HP EACHGOOD Combustion practice.LA-0318FLOPAM FACILITY01/07/20164/28/2017Benergency generator engines (6 units)3353 hpComplying with 40 CFR 60 Subpart IIILA-0313ST. CHARLES POWER STATION08/31/20164/28/2017Benergency Generator 12564 HPGood combustion practicesLA-0334ST. CHARLES FOWER STATION08/31/20164/28/2017Emergency Generator figines0Complying with 40 CFR 60 Subpart IIILA-0396MARONUL KG FACILITY03/21/20164/28/2017Emergency Generator S(EQTS 622, 671, 773, 850, 994, 995, 996, 1033,2682 HPGood combustion practicesLA-0376MARONU KG FACILITY05/23/20144/28/2017Emergency Generators (EQTS 622, 671, 773, 850, 994, 995, 996, 1033,2682 HP<	WV-0025	MOUNDSVILLE COMBINED CYCLE POWER PLANT	11/21/2014	5/1/2018	Emergency Generator	2015.7 HP		1.24 LB/H	BACT-PSD
VA-332PERDUE GRAIN AND OILSEED, LLC07/12/201711/2/2017Emergency Generator0NY-013CPV VALLEY ENERGY CENTER08/01/20139/28/2017Emergency generator0Good combustion practice.NY-013CRICKET VALLEY ENERGY CENTER03/02/20178/22/2017EMERGENCY GENERATORS (EU014A AND EU-0148)3600 HP EACHGOOD COMBUSTION PRACTICESLA-0316AMERON LNG FACILITY01/07/20164/28/2017EMERGENCY GENERATORS (EU014A AND EU-0148)3600 HP EACHGOOD COMBUSTION PRACTICESLA-0318FLOPAM FACILITY01/07/20164/28/2017Diesel Engines0Complying with 40 CFR 60 Subpart IIIILA-0315CAMERON LNG FACILITY01/07/20164/28/2017SCP5 Emergency Diesel Generator 12584 HPGood combustion practicesLA-0326LAKE CHARLES POWER STATION03/21/20154/28/2017SCP5 Emergency Diesel Generator 12584 HPGood combustion practicesLA-0326LAKE CHARLES CHEMICAL COMPLEX LDPE UNIT05/23/20144/28/2017Diesel Engines0Complying with 40 CFR 60 Subpart IIIILA-0226LAKE CHARLES CHEMICAL COMPLEX LDPE UNIT05/23/20144/28/2017Diesel Generators (EQTs 622, 671, 773, 850, 994, 995, 996, 1033, 2682 HPCompliance with 40 CFR 60 Subpart IIIILA-0226LAKE CHARLES CHEMICAL COMPLEX LDPE UNIT05/23/20144/28/2017Emergency Generators (EQTs 622, 671, 773, 850, 994, 995, 996, 1033, 2682 HPCompliance with 40 CFR 60 Subpart IIIILA-0226LAKE CHARLES CHEMICAL COMPLEX LDPE UNIT05/23/20144/28/2017Emergency Generators (E	NJ-0084	PSEG FOSSIL LLC SEWAREN GENERATING STATION	03/10/2016	4/17/2018	Diesel Fired Emergency Generator	44 H/YR		1 LB/H	LAER
NY-010CPV VALLEY ENERGY CENTER08/01/20139/28/2017Emergency generator0Good combustion practice.NY-0103CRICKT VALLEY ENERGY CENTER02/03/20169/28/2017Black start generator000 KWComplance demonstrated with vendor emission certification and adherence to vendor-specified maintenance recommendations.IN-0263MIDWEST FERTILIZER COMPANY LLC03/23/20178/22/2017EMERGENCY GENERATORS (EU014A AND EU-014B)3000 HP EACHGOOD COMBUSTION PRACTICESLA-0318FLOPAM FACILITY01/07/20164/28/2017Diesel Engines0Complying with 40 CFR 60 Subpart IIILA-0315CAMERON LNG FACILITY02/11/20174/28/2017SCPS Emergency generator engines (6 units)353 hpComplying with 40 CFR 60 Subpart IIILA-0309BENTELER STEL TUBE FACILITY06/04/20154/28/2017SCPS Emergency Diesel Generator 12584 HPCood combustion practicesLA-0309BENTELER STEL TUBE FACILITY05/21/20164/28/2017Emergency Generator Engines0Complying with 40 CFR 60 Subpart IIILA-0296LAKE CHARLES CHEMICAL COMPLEX LDPE UNIT05/23/20144/28/2017Emergency Diesel Generators (EQTs 622, 671, 773, 850, 994, 995, 996, 1033,2682 HPComplying with 40 CFR 60 Subpart IIILA-0296BATON ROUGE JUNCTION FACILITY05/23/20144/28/2017Emergency Generators (EQTs 622, 671, 773, 850, 994, 995, 996, 1033,2682 HPComplying with 40 CFR 60 Subpart IIILA-0296BATON ROUGE JUNCTION FACILITY05/23/20144/28/2017Fire Pump Engines (2 units)700 hp	MI-0423		01/04/2017			22.68 MMBTU/H	Good combustion practices.	1.87 LB/H	BACT-PSD
NY-0103     CRICKET VALLEY ENERGY CENTER     02/03/2015     9/28/2017     Black start generator     3000 KW     Compliance demonstrated with vendor emission certification and adherence to vendor-specified maintenance recommendations.       IN-0263     MIDWEST FERTILIZER COMPANY LLC     03/23/2017     8/22/2017     EMERGENCY GENERATORS (EU014A AND EU-014B)     3600 HP EACH     GODD COMBUSTION PRACTICES       LA-0316     FLOPAM FACILITY     01/07/2016     4/28/2017     Diesel Engines     0     Complying with 40 CFR 60 Subpart IIII       LA-0315     FLOPAM FACILITY     02/17/2017     4/28/2017     EMERGENCY GENERATORS (EU014A AND EU-014B)     3533 hp     Complying with 40 CFR 60 Subpart IIII       LA-0315     FLOPAM FACILITY     02/17/2017     4/28/2017     Diesel Engines     0     Complying with 40 CFR 60 Subpart IIII       LA-0305     BMTELER STELE TUBE FACILITY     03/21/2016     4/28/2017     Diesel Engines     0     Complying with 40 CFR 60 Subpart IIII       LA-0307     MAGNOLIA LNG FACILITY     03/21/2016     4/28/2017     Diesel Engines     0     Complying with 40 CFR 60 Subpart IIII       LA-0236     LAKE CHARLES CHEMICAL COMPLEX LDPE UNIT     05/23/2014     4/28/2017     Emergency Diesel Generators (EQTs 622, 671, 773, 850, 994, 995, 996, 1033, 2682 HP     Compliance with 40 CFR 60 Subpart IIII       LA-0236     LAKE CHARLES CHEMICAL COMPLEX LDPE UNIT     05/23/2014     4/2						-		0.49 LB/HR	BACT-PSD
IN-0263       MIDWEST FERTILIZER COMPANY LLC       03/23/2017       8/22/2017       EMERGENCY GENERATORS (EU014A AND EU-014B)       3600 HP EACH       GODD COMBUSTON PRACTICES         LA-0318       FLOPAM FACILITY       01/07/2016       4/28/2017       Diesel Engines       0       Complying with 40 CFR 60 Subpart IIII         LA-0316       CAMERON ING FACILITY       02/17/2017       4/28/2017       Beregency generator engines (6 units)       3353 hp       Complying with 40 CFR 60 Subpart IIII         LA-0316       CAMERON ING FACILITY       02/17/2017       4/28/2017       SED emergency generator engines (6 units)       3353 hp       Complying with 40 CFR 60 Subpart IIII         LA-0307       MAGNOLIA ING FACILITY       06/04/2015       4/28/2017       Emergency Generator Engines       2922 hp (each)       Complying with 40 CFR 60 Subpart IIII         LA-0307       MAGNOLIA ING FACILITY       03/21/2016       4/28/2017       Diesel Engines       0       good combustion practices         LA-0296       LAKE CHARLES CHEMICAL COMPLEX LDPE UNIT       05/23/2014       4/28/2017       Emergency Diesel Generators (EQTS 622, 671, 773, 850, 994, 995, 996, 1033, 2682 HP       Complying with 40 CFR 60 Subpart IIII; operating the engine macordance with the engine manufacturerade instructions and/or written procedures (consistent with safe operation) designed to maximize combuston efficiency and minimize feel usage.         LA-0296       BATON R							· · · · · · · · · · · · · · · · · · ·	0.0331 LB/MMBTU	LAER
IN-0263       MIDWEST FERTILIZER COMPANY LLC       03/23/017       8/22/017       EMREGENCY GENERATORS (EU014A AND EU-0148)       3600 HP EACH       GOOD COMBUSTION PRACTICES         LA-0318       FLOPAM FACILITY       01/07/2016       4/28/2017       Diesel Engines       0       Complying with 40 CFR 60 Subpart IIII         LA-0318       CAMERON UNG FACILITY       02/17/2017       4/28/2017       SEPS Emergency Diesel Generator 1       2584 HP       Good combustion practices         LA-0309       BMTELER STELT TUBE FACILITY       03/21/2016       4/28/2017       Diesel Engines       0       Complying with 40 CFR 60 Subpart IIII         LA-0309       BMTELER STELT TUBE FACILITY       03/21/2016       4/28/2017       Diesel Engines       0       Complying with 40 CFR 60 Subpart IIII         LA-0307       MAGNOLIA LNG FACILITY       03/21/2016       4/28/2017       Diesel Engines       0       Complying with 40 CFR 60 Subpart IIII         LA-0276       LAKE CHARLES CHEMICAL COMPLEX LDPE UNIT       05/23/2014       4/28/2017       Emergency Diesel Generators (EQTs 622, 671, 773, 850, 994, 995, 996, 1033, 2682 HP       Compliance with 40 CFR 60 Subpart IIII       Compliance with 40 CFR 60 Subpart	NY-0103	CRICKET VALLEY ENERGY CENTER	02/03/2016	9/28/2017	Black start generator	3000 KW	certification and adherence to vendor-specified	0.11 G/BHP-H	LAER
LA-0318FLOPAM FACILITY01/07/20164/28/2017Diesel Engines0Complying with 40 CFR 60 Subpart IIIILA-0316CAMERON ING FACILITY02/17/20174/28/2017mergency generator engines (6 units)3353 hpComplying with 40 CFR 60 Subpart IIIILA-0318C. CHARLES OVERS TATION08/31/20164/28/2017Emergency Generator Engines2584 HPGood combustion practicesLA-0309BENTELER STEEL TUBE FACILITY06/04/20154/28/2017Emergency Generator Engines2922 hp (each)Complying with 40 CFR 60 Subpart IIIILA-0307MAGNOLIA LNG FACILITY03/21/20164/28/2017Diesel Engines0good combustion practices, Use uitra low sulfur dieselLA-0296LAKE CHARLES CHEMICAL COMPLEX LDPE UNIT05/23/20144/28/2017Emergency Diesel Generators (EQTs 622, 671, 773, 850, 994, 995, 996, 1033,2682 HPComplying with 40 CFR 60 Subpart IIIILA-0296BATON ROUGE JUNCTION FACILITY05/23/20144/28/2017Emergency Diesel Generators (EQTs 622, 671, 773, 850, 994, 995, 996, 1033,2682 HPComplying with and/or written procedures (consistent with safe operation) designed to maximize combustion and/or written procedures (consistent with safe operation) designed to maximize combustion and/or written procedures (consistent with safe operation) designed to maximize combustion and/or written procedures (consistent with safe operation) designed to maximize fuel usage.LA-0296BATON ROUGE JUNCTION FACILITY12/15/20164/28/2017Fire Pump Engines (2 units)700 hpComply with standards of NSPS Subpart IIIILA-0292HOLBROOK COMPRESSOR STATION <td< td=""><td></td><td></td><td>02/22/2017</td><td>0/22/2017</td><td></td><td></td><td></td><td></td><td>BACT-PSD</td></td<>			02/22/2017	0/22/2017					BACT-PSD
LA-0316       CAMERON LING FACILITY       02/17/2017       4/28/2017       emergency generator engines (6 units)       3353 hp       Complying with 40 CFR 60 Subpart III         LA-0316       ST. CHARLES POWER STATION       08/31/2016       4/28/2017       Strengency Diesel Generator 1       2584 HP       Good combustion practices         LA-0306       BMTELER STELET UBE FACILITY       06/04/2015       4/28/2017       Temergency Generator Engines       0       good combustion practices, Use uitra low sulfur diesel and comply with 40 CFR 60 Subpart III         LA-0307       MAGNOLIA LING FACILITY       03/21/2016       4/28/2017       Temergency Generator Engines       0       good combustion practices, Use uitra low sulfur diesel and comply with 40 CFR 60 Subpart III         LA-0296       LAKE CHARLES CHEMICAL COMPLEX LDPE UNIT       05/23/2014       4/28/2017       Emergency Generators (EQTs 622, 671, 773, 850, 994, 995, 996, 1033, 2682 HP       Complying with 40 CFR 60 Subpart III       Complying with 40 CFR 60 Subpart III         LA-0296       LAKE CHARLES CHEMICAL COMPLEX LDPE UNIT       05/23/2014       4/28/2017       Emergency Generators (EQTs 622, 671, 773, 850, 994, 995, 996, 1033, 2682 HP       Complying with 40 CFR 60 Subpart III       Complying with 40 CFR 60 Subpart III       Complying with 40 CFR 60 Subpart III         LA-0296       LAKE CHARLES CHEMICAL COMPLEX LDPE UNIT       05/23/2014       4/28/2017       Fire Pump Engines (2 units) <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.35 G/HP-H EACH 0</td><td>LAFR</td></td<>								0.35 G/HP-H EACH 0	LAFR
LA-0313       ST. CHARLES POWER STATION       08/31/2016       4/28/2017       SCPS Emergency Diesel Generator 1       2584 HP       Good combustion practices         LA-0309       BENTELER STEEL TUBE FACILITY       06/04/2015       4/28/2017       SCPS Emergency Generator Engines       2922 hp (each)       Complying with 40 CFR 60 Subpart IIII         LA-0307       MAGNOLIA LNG FACILITY       03/21/2016       4/28/2017       bisel Engines       0       good combustion practices         LA-0296       LAKE CHARLES CHEMICAL COMPLEX LDPE UNIT       05/3/2014       4/28/2017       mergency Disel Generators (EQTs 622, 671, 773, 850, 994, 995, 996, 1033,       2682 HP       Compliance with 40 CFR 60 Subpart IIII         LA-0296       LAKE CHARLES CHEMICAL COMPLEX LDPE UNIT       05/3/2014       4/28/2017       mergency Disel Generators (EQTs 622, 671, 773, 850, 994, 995, 996, 1033,       2682 HP       Compliance with 40 CFR 60 Subpart IIII         LA-0296       BATON ROUGE JUNCTION FACILITY       01/21/2016       4/28/2017       Fire Pump Engines (2 units)       700 hp       Comply with standards of NSPS Subpart IIII         LA-02976       BATON ROUGE JUNCTION FACILITY       01/22/2016       9/19/2016       Emergency Generators No. 1 & marp, No. 2       700 hp       Comply with standards of NSPS Subpart IIII         LA-0292       HOLBROOK COMPRESSOR STATION       01/22/2016       9/19/2016       Emerge								0	BACT-PSD
LA-0309       BENTELER STEEL TUBE FACILITY       06/04/2015       4/28/2017       Emergency Generator Engines       2922 hp (each)       Complying with 40 CFR 60 Subpart IIII         LA-0309       MAGNOLIA LNG FACILITY       03/21/2016       4/28/2017       Diesel Engines       0       god combustion practices, Use uitra low sulfur diesel and comply with 40 CFR 60 Subpart IIII         LA-0296       LAKE CHARLES CHEMICAL COMPLEX LDPE UNIT       05/23/2014       4/28/2017       Emergency Generators (EQTs 622, 671, 773, 850, 994, 995, 996, 1033, 2682 HP       Complying with 40 CFR 60 Subpart IIII; operating the engine manufacturer64 distribution practices, with 40 CFR 60 Subpart III; operating the engine manufacturer64 distribution and/or written procedures (consistent with safe operation) designed to maximize combustion efficiency and minimize fuel usage.         LA-0276       BATON ROUGE JUNCTION FACILITY       12/15/2016       4/28/2017       Fire Pump Engines (2 units)       700 hp       Comply with standards of NSPS Subpart IIII         LA-0292       HOLBROOK COMPRESSOR STATION       01/22/2016       9/19/2016       Emergency Generators No. 1& amp; No. 2       1341 HP       Comply with standards of NSPS Subpart life manufacturer64								27.34 LB/H	BACT-PSD BACT-PSD
LA-0307       MAGNOLIA LNG FACILITY       03/21/2016       4/28/2017       Diese Engines       0       good combustion practices, Use ultra low sulfur diesel and comply with 40 CFR 60 Subpart III         LA-0296       LAKE CHARLES CHEMICAL COMPLEX LDPE UNIT       05/23/2014       4/28/2017       Emergency Diesel Generators (EQTs 622, 671, 773, 850, 994, 995, 996, 1033, 2682 HP       2682 HP       Compliance with 40 CFR 60 Subpart III         LA-0296       LAKE CHARLES CHEMICAL COMPLEX LDPE UNIT       05/23/2014       4/28/2017       Emergency Diesel Generators (EQTs 622, 671, 773, 850, 994, 995, 996, 1033, 2682 HP       2682 HP       Compliance with 40 CFR 60 Subpart III         LA-0296       BATON ROUGE JUNCTION FACILITY       12/15/2016       4/28/2017       Fire Pump Engines (2 units)       700 hp       Comply with standards of NSPS Subpart IIII         LA-0297       HOLBROOK COMPRESSOR STATION       01/22/2016       9/19/2016       Emergency Generators No. 1 & amp; No. 2       700 hp       Comply with standards of NSPS Subpart IIII								0	BACT-PSD
LA-0296 LAKE CHARLES CHEMICAL COMPLEX LDPE UNIT 05/23/2014 4/28/2017 Emergency Diesel Generators (EQTs 622, 671, 773, 850, 994, 995, 996, 1033, 2682 HP Compliance with 40 CFR 60 Subpart III; operating the engine in accordance with the engine manufacturerade instructions and/or written engine manufacturerade instructions and/or written engine manufacturerade instructions and/or written engine manufacturerade instructions and/or written engine manufacturerade instructions and/or written engine manufacturerade instructions and/or written engine manufacturerade instructions and/or written engine manufacturerade instructions and/or written engine manufacturerade instructions and/or written engine manufacturerade instructions and/or written engine manufacturerade instructions and/or written engine manufacturerade instructions and/or written engine manufacturerade instructions and/or written engine manufacturerade instructions and/or written engine manufacturerade instructions and/or written engine manufacturerade instructions and/or written engine manufacturerade instructions engine							good combustion practices, Use ultra low sulfur diesel,	0	BACT-PSD
LA-029 HOLBROOK COMPRESSOR STATION 01/22/2016 9/19/2016 Emergency Generators No. 1 & amp; No. 2 1341 HP Good combustion practices consistent with the manufacturer's recommendations to maximize fuel	LA-0296	LAKE CHARLES CHEMICAL COMPLEX LDPE UNIT	05/23/2014	4/28/2017	Emergency Diesel Generators (EQTs 622, 671, 773, 850, 994, 995, 996, 1033,	2682 HP	Compliance with 40 CFR 60 Subpart IIII; operating the engine in accordance with the engine manufacturerã€ <sup>™</sup> instructions and/or written procedures (consistent with safe operation) designed to maximize combustion	0.85 LB/HR	BACT-PSD
LA-029 HOLBROOK COMPRESSOR STATION 01/22/2016 9/19/2016 Emergency Generators No. 1 & amp; No. 2 1341 HP Good combustion practices consistent with the manufacturer's recommendations to maximize fuel	LA-0276	BATON ROUGE JUNCTION FACILITY	12/15/2016	4/28/2017	Fire Pump Engines (2 units)	700 hp	Comply with standards of NSPS Subpart III	0	BACT-PSD
efficiency and minimize emissions			1 .1	1 -1 -		· · · ·	Good combustion practices consistent with the	0.83 LB/HR	BACT-PSD BACT-PSD
LA-0288 LAKE CHARLES CHEMICAL COMPLEX 05/23/2014 9/14/2016 Emergency Diesel Generators (EQT 629, 639, 838, 966, & 1264) 2682 HP Comply with 40 CFR 60 Subpart IIII; operate the engine in accordance with the engine manufacturer4č <sup>w</sup> s instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel	LA-0288	LAKE CHARLES CHEMICAL COMPLEX	05/23/2014	9/14/2016	Emergency Diesel Generators (EQT 629, 639, 838, 966, & 1264)	2682 HP	Comply with 40 CFR 60 Subpart IIII; operate the engine in accordance with the engine manufacturerate <sup>m</sup> s instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel	0.85 LB/HR	BACT-PSD
Usage. OK-0154 MOORELAND GENERATING STA 07/02/2013 7/29/2016 DIESEL-FIRED EMERGENCY GENERATOR ENGINE 1341 HP COMBUSTION CONTROL.	OK-0154	MOORELAND GENERATING STA	07/02/2013	7/29/2016	DIESEL-FIRED EMERGENCY GENERATOR ENGINE	1341 HP		0.0007 LB/HP-HR	BACT-PSD

		Permit	Date Last					
RBLCID	Facility Name	Issuance Date	Updated	Process Name	Throughput	Control Method Description	Emission Limit EMISSION_LIMIT_	1_A\ BASIS
TX-0799	BEAUMONT TERMINAL	06/08/2016	7/7/2016	Fire pump engines	0	Equipment specifications and good combustion practices. Operation limited to 100 hours per year.	0.0007 LB/HP-HR	BACT-PSD
FL-0347	ANADARKO PETROLEUM CORPORATION - EGOM	09/16/2014	7/6/2016	Main Propulsion Generator Diesel Engines	9910 hp	Use of good combustion practices based on the most recent manufacturer's specifications issued for engines and with turbocharger, aftercooler, and high injection pressure	0.35 G/KW-H	BACT-PSD
FL-0347	ANADARKO PETROLEUM CORPORATION - EGOM	09/16/2014	7/6/2016	Emergency Diesel Engine	3300 hp	Use of good combustion practices based on the most recent manufacturer's specifications issued for engines and with turbocharger, aftercooler, and high injection pressure	0	BACT-PSD
OK-0164	MIDWEST CITY AIR DEPOT	01/08/2015	7/6/2016	Jet Engine Testing Cells	65000 FT-LB THRUST		1.7 TONS PER YEAR	BACT-PSD
IL-0114	CRONUS CHEMICALS, LLC	09/05/2014	5/5/2016	Emergency Generator	3755 HP	Tier IV standards for non-road engines at 40 CFR 1039.102, Table 7.	0.4 G/KW-H	BACT-PSD
PR-0009	ENERGY ANSWERS ARECIBO PUERTO RICO RENEWABLE ENERGY	04/10/2014	5/5/2016	Emergency Diesel Generator	0		0.15 G/B-HP-H	BACT-PSD
IN-0180	MIDWEST FERTILIZER CORPORATION	06/04/2014	5/5/2016	DIESEL FIRED EMERGENCY GENERATOR	3600 BHP	GOOD COMBUSTION PRACTICES	0.31 G/B-HP-H	BACT-PSD
IN-0179	OHIO VALLEY RESOURCES, LLC	09/25/2013	5/4/2016	DIESEL-FIRED EMERGENCY GENERATOR	4690 B-HP	GOOD COMBUSTION PRACTICES	0.31 G/B-HP-H	BACT-PSD
IN-0173	MIDWEST FERTILIZER CORPORATION	06/04/2014	5/4/2016	DIESEL FIRED EMERGENCY GENERATOR	3600 BHP	GOOD COMBUSTION PRACTICES	0.31 G/BHP-H	BACT-PSD
LA-0272	AMMONIA PRODUCTION FACILITY	03/27/2013	5/4/2016	EMERGENCY DIESEL GENERATOR (2205-B)	1200 HP	Compliance with 40 CFR 60 Subpart IIII; good combustion practices.	0	BACT-PSD
OH-0355	GENERAL ELECTRIC AVIATION, EVENDALE PLANT	05/07/2013	5/4/2016	Test Cell 1 for Aircraft Engines and Turbines	0		0.7 LB/MMBTU	N/A
OH-0355	GENERAL ELECTRIC AVIATION, EVENDALE PLANT	05/07/2013	5/4/2016	Test Cell 2 for Aircraft Engines and Turbines	0		0.7 LB/MMBTU	N/A
IA-0106	CF INDUSTRIES NITROGEN, LLC - PORT NEAL NITROGEN COMPLE	E 07/12/2013	5/4/2016	Emergency Generators	180 GAL/H	good combustion practices	4 G/KW-H	BACT-PSD
OH-0352	OREGON CLEAN ENERGY CENTER	06/18/2013	5/4/2016	Emergency generator	2250 KW	Purchased certified to the standards in NSPS Subpart IIII	3.93 LB/H	BACT-PSD
AK-0082	POINT THOMSON PRODUCTION FACILITY	01/23/2015	2/19/2016	Emergency Camp Generators	2695 hp		0.0007 LB/HP-H	BACT-PSD
AK-0082	POINT THOMSON PRODUCTION FACILITY	01/23/2015	2/19/2016	Fine Water Pumps	610 hp		0.0007 LB/HP-H	BACT-PSD
AK-0082	POINT THOMSON PRODUCTION FACILITY	01/23/2015	2/19/2016	Bulk Tank Generator Engines	891 hp		0.0007 LB/HP-H	BACT-PSD

RBLCID	Facility Name	Permit Issuance Date	Date Last Updated	Process Name	Throughput	Control Method Description	Emission Limit EMISSION LIMIT 1	AVBASIS
PM - Filter				Trotes name	moughput	·····		
*MI-0454	LBWL-ERICKSON STATION	12/20/2022	5/15/2023	EUEMGD	4474.2 KW	Good combustion practices, burn ultra-low diesel fuel, and will be NSPS compliant.	0.2 G/KWH	OTHER CASE
MI-0452	MEC SOUTH, LLC	06/23/2022	4/25/2023	EUEMENGINE (South Plant): Emergency engine	1341 HP	Diesel particulate filter, Good Combustion Practices and meeting NSPS Subpart IIII requirements	0.2 G/KW-H	BACT-PSD
MI-0451	MEC NORTH, LLC	06/23/2022	4/25/2023	EUEMENGINE (North Plant): Emergency engine	1341 HP	Diesel particulate filter, good combustion practices and meeting NSPS Subpart IIII requirements.	0.2 G/KW-H	BACT-PSD
AR-0177	NUCOR STEEL ARKANSAS	11/21/2022	4/25/2023	SN-230 Galvanizing Line No, 2 Emergency Generator	3634 Horsepower		0.2 G/KW-HR	BACT-PSD
*TX-0939	ORANGE COUNTY ADVANCED POWER STATION	03/13/2023	4/3/2023	EMERGENCY GENERATOR	18.7 MMBTU/HR	GOOD COMBUSTION PRACTICES, LIMITED TO 100 HR/YR	0.0003 LB/HP HR	BACT-PSD
MI-0448	GRAYLING PARTICLEBOARD	12/18/2020	8/16/2022	Emergency diesel generator engine (EUEMRGRICE1 in FGRICE)	500 h/yr	Certified Engines, Good Design, Operation, and Combustion Practices, Operational Restrictions/Limited Use	0.66 LB/H	BACT-PSD
MI-0448	GRAYLING PARTICLEBOARD	12/18/2020	8/16/2022	Emergency diesel generator engine (EUEMRGRICE2 in FGRICE)	500 h/yr	Certified Engines, Good Design, Operation, and Combustion Practices, Operational Restrictions/Limited Use	0.22 LB/H	BACT-PSD
MI-0448	GRAYLING PARTICLEBOARD	12/18/2020	8/16/2022	Diesel fire pump engine (EUFIREPUMP in FGRICE)	500 h/yr	Certified Engines, Good Design, Operation, and Combustion Practices, Operational Restrictions/Limited Use	0.18 LB/H	BACT-PSD
TX-0933	NACERO PENWELL FACILITY	11/17/2021	3/8/2022	Emergency Generators	0	limited to 100 hours per year of non-emergency operation. EPA Tier 2 (40 CFR § 1039.101) exhaust emission standards	0	BACT-PSD
TX-0915	UNIT 5	03/17/2021	3/8/2022	DIESEL GENERATOR	0	LIMITED 500 HR/YR OPERATION	0.022 G/HPHR	BACT-PSD
AL-0328	PLANT BARRY	11/09/2020	3/4/2022	Diesel Emergency Engines	0		0.15 G/BHP-HR	BACT-PSD
FL-0367	SHADY HILLS COMBINED CYCLE FACILITY	07/27/2018	3/4/2022	1,500 kW Emergency Diesel Generator	14.82 MMBtu/hour	Operate and maintain the engine according to the manufacturer's written instructions	0.2 G/KW-HOUR	BACT-PSD
FL-0363	DANIA BEACH ENERGY CENTER	12/04/2017	3/4/2022	Two 3300 kW emergency generators	0	Clean fuel	0.2 GRAMS PER KWH	BACT-PSD
TX-0904	MOTIVA POLYETHYLENE MANUFACTURING COMPLEX	09/09/2020	12/1/2021	EMERGENCY GENERATOR	0	100 HOURS OPERATIONS, Tier 4 exhaust emission standards specified in 40 CFR § 1039.101	0	BACT-PSD
MI-0447	LBWLERICKSON STATION	01/07/2021	9/10/2021	EUEMGDemergency engine	4474.2 KW	Good combustion practices, burn ultra-low diesel fuel, and will be NSPS compliant.	0.2 G/KW-H	OTHER CASE
TX-0905	DIAMOND GREEN DIESEL PORT ARTHUR FACILITY	09/16/2020	9/10/2021	EMERGENCY GENERATOR	0	limited to 100 hours per year of non-emergency operation	0	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021	New Pumphouse (XB13) Emergency Generator #1 (EP 08-05)	2922 HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan.	0.15 G/HP-HR	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021	Tunnel Furnace Emergency Generator (EP 08-06)	2937 HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0.15 G/HP-HR	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021	Caster B Emergency Generator (EP 08-07)	2937 HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0.15 G/HP-HR	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021	Air Separation Unit Emergency Generator (EP 08-08)	700 HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0.15 G/HP-HR	BACT-PSD
VA-0332	CHICKAHOMINY POWER LLC	06/24/2019	5/19/2021	Emergency Diesel Generator - 300 kW	500 H/YR	good combustion practices, high efficiency design, and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	0.15 G/HP-H	BACT-PSD
AR-0161	SUN BIO MATERIAL COMPANY	09/23/2019	5/5/2021	Emergency Engines	0	Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	0.02 G/KW-H	BACT-PSD
KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021	EP 10-02 - North Water System Emergency Generator	2922 HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15 G/HP-HR	BACT-PSD
KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021	EP 10-03 - South Water System Emergency Generator	2922 HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15 G/HP-HR	BACT-PSD
KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021	EP 10-04 - Emergency Fire Water Pump	920 HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15 G/HP-HR	BACT-PSD
KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021	EP 10-07 - Air Separation Plant Emergency Generator	700 HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15 G/HP-HR	BACT-PSD
КҮ-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021	EP 10-01 - Caster Emergency Generator	2922 HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15 G/HP-HR	BACT-PSD

RBLCID	Facility Name	Permit Issuance Date	Date Last Updated	Process Name	Throughput	Control Method Description	Emission Limit EN	VISSION_LIMIT_1	AV BASIS
кү-0109	FRITZ WINTER NORTH AMERICA, LP	10/24/2016	1/25/2021	Emergency Generators #1, #2, & #3 (EU72, EU73, & EU74)	53.6 gal/hr	The permittee shall prepare and maintain for EU72, EU73, and EU74, within 90 days of startup, a good combustion and operation practices plan (GCOP) that defines, measures and verifies the use of operational and design practices determined as BACT for minimizing CO, VOC, PM, PMUO, and PM2.5 emissions. Any revisions requested by the Division shall be made and the plan shall be maintained on site. The permittee shall operate according to the provisions of this plan at all times, including periods of startup, shutdown, and maffunction. The plan shall be incorporated into the plant standard operating procedures (SOP) and shall be made available for the Division <sup>6</sup> '''s inspection. The plan shall include, but not be limited to: i. A list of combustion optimization practices and a means of verifying the practices have occurred. ii. A list of combustion and operation practices to be used to lower energy consumption and a means of verifying the practices have occurred. ii. A list of the design choices determined to be BACT and verification that designs were implemented in the final construction.	0.149 G/	/HP-HR (EU72 &EU	73 BACT-PSD
*MI-0445	INDECK NILES, LLC	11/26/2019	12/23/2020	EUEMENGINE (diesel fuel emergency engine)	22.68 MMBTU/H	Good Combustion Practices and meeting NSPS Subpart IIII requirements	0.2 G/	/кw-н	BACT-PSD
TX-0888	ORANGE POLYETHYLENE PLANT	04/23/2020	11/12/2020	EMERGENCY GENERATORS & amp; FIRE WATER PUMP ENGINES	0	well-designed and properly maintained engines and each limited to 100 hours per year of non-emergency use.	0		BACT-PSD
TX-0876	PORT ARTHUR ETHANE CRACKER UNIT	02/06/2020	11/12/2020	Emergency firewater pumps	0	Tier 3 exhaust emission standards specified in 40 CFR § 89.112, limited to 100 hours per year of non-emergency operation	0		BACT-PSD
AR-0163	BIG RIVER STEEL LLC	06/09/2019	11/10/2020	Emergency Engines	0	Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	0.2 G/	/KW-HR	BACT-PSD
KS-0040	JOHNS MANVILLE AT MCPHERSON	12/03/2019	8/25/2020	Emergency Diesel Engines	0	Emergency Diesel Engine and Fire Pump Subject to NSPS Subpart IIII - Combustion Control and Limited Operating Hours.	0.2 GF	R/KWH	BACT-PSD
MD-0042	WILDCAT POINT GENERATION FACILITY	04/08/2014	8/12/2020	EMERGENCY GENERATOR 1	2250 KW	EXCLUSIVE USE OF ULSD FUEL, GOOD COMBUSTION PRACTICES, LIMITED HOURS OF OPERATION, AND DESIGNED TO ACHIEVE EMISSION LIMITS	0.15 G/	/нр-н	BACT-PSD
AK-0084	DONLIN GOLD PROJECT	06/30/2017	4/16/2020	Twelve (12) Large ULSD/Natural Gas-Fired Internal Combustion Engines	143.5 MMBtu/hr	Clean Fuel and Good Combustion Practices		/KW-HR (ULSD)	BACT-PSD
TX-0728 VA-0328	PEONY CHEMICAL MANUFACTURING FACILITY C4GT, LLC	04/01/2015 04/26/2018		Emergency Diesel Generator Emergency Diesel GEN	1500 hp 500 H/YR	Minimized hours of operations Tier II engine good combustion practices and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	0.15 LB 0.15 G/	/НР Н	OTHER CAS BACT-PSD
MI-0435 MI-0433	BELLE RIVER COMBINED CYCLE POWER PLANT MEC NORTH, LLC AND MEC SOUTH LLC	07/16/2018 06/29/2018	2/19/2019 2/19/2019	EUEMENGINE: Emergency engine EUEMENGINE (North Plant): Emergency Engine	2 MW 1341 HP	State of the art combustion design Diesel particulate filter, good combustion practices and	0.2 G/ 0.2 G/		BACT-PSD BACT-PSD
MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	06/29/2018	2/19/2019	EUEMENGINE (South Plant): Emergency Engine	1341 HP	meeting NSPS Subpart IIII requirements. Diesel particulate filter, good combustion practices and meeting NSPS IIII requirements.	0.2 G/	/KW-H	BACT-PSD
PA-0309	LACKAWANNA ENERGY CTR/JESSUP	12/23/2015		2000 kW Emergency Generator	0		0.025 GM	M/HP-HR	BACT-PSD
MD-0044	COVE POINT LNG TERMINAL	06/09/2014	5/14/2018	EMERGENCY GENERATOR	1550 HP	EXCLUSIVE USE OF ULSD FUEL, GOOD COMBUSTION PRACTICES AND DESIGNED TO ACHIEVE EMISSION LIMITS	0.15 G/	/нр-н	BACT-PSD
NJ-0084	PSEG FOSSIL LLC SEWAREN GENERATING STATION	03/10/2016	4/17/2018	Diesel Fired Emergency Generator	44 H/YR	use of ULSD a clean burning fuel, and limited hours of operation	0.26 LB	9/Н	BACT-PSD
MI-0423	INDECK NILES, LLC	01/04/2017	3/8/2018	EUEMENGINE (Diesel fuel emergency engine)	22.68 MMBTU/H	Good combustion practices and meeting NSPS Subpart IIII requirements.	0.2 G/		BACT-PSD
MI-0425	GRAYLING PARTICLEBOARD	05/09/2017	11/15/2017	EUEMRGRICE1 in FGRICE (Emergency diesel generator engine)	500 H/YR	Certified engines, good design, operation and combustion practices. Operational restrictions/limited use.	0.66 LB	8/H	BACT-PSD
MI-0425	GRAYLING PARTICLEBOARD	05/09/2017	11/15/2017	EUEMRGRICE2 in FGRICE (Emergency Diesel Generator Engine)	500 H/YR	Certified engines, good design, operation and combustion practices. Operational restrictions/limited use.	0.22 LB	3/H	BACT-PSD
MI-0425	GRAYLING PARTICLEBOARD	05/09/2017	11/15/2017	EUFIREPUMP in FGRICE (Diesel fire pump engine)	500 H/YR	Certified engines. Good design, operation and combustion practices. Operational restrictions/limited use.	0.18 LB	9/Н	BACT-PSD
NY-0104	CPV VALLEY ENERGY CENTER	08/01/2013	9/28/2017	Emergency generator	0	Ultra low sulfur diesel with maximum sulfur content 0.0015 percent.	0.03 G/	/внр-н	BACT-PSD
NY-0103	CRICKET VALLEY ENERGY CENTER	02/03/2016	9/28/2017	Black start generator	3000 KW	Compliance demonstrated with vendor emission certification and adherence to vendor-specified maintenance recommendations.	0.15 G/	/ВНР-Н	BACT-PSD

RBLCID		Permit Issuance Date	Date Last Updated	Process Name	Throughput	Control Method Description	Emission Limit EMISSION_LIMIT_1	1_A\ BASIS
MI-0421	GRAYLING PARTICLEBOARD	08/26/2016	7/20/2017		500 H/YR	Certified engines, good design, operation and	1.41 LB/H	BACT-PSD
		00,20,2010				combustion practices. Operational restrictions/limited use.		
ЛI-0421	GRAYLING PARTICLEBOARD	08/26/2016	7/20/2017	Dieself fire pump engine (EUFIREPUMP in FGRICE)	500 H/YR	Certified engines, good design, operation and combustion practices. Operational restrictions/limited use.	0.18 LB/H	BACT-PSD
R-0140	BIG RIVER STEEL LLC	09/18/2013	12/13/2016	EMERGENCY GENERATORS	1500 KW	GOOD OPERATING PRACTICES, LIMITED HOURS OF OPERATION, COMPLIANCE WITH NSPS SUBPART IIII	0.02 G/KW-H	BACT-PSD
/1-0406	RENAISSANCE POWER LLC	11/01/2013	7/7/2016	FG-EMGEN7-8; Two (2) 1,000kW diesel-fueled emergency reciprocating inter	1000 kW	Good combustion practices.	0.15 G/B-HP-H	BACT-PSD
L-0301	NUCOR STEEL TUSCALOOSA, INC.	07/22/2014	6/8/2016	DIESEL FIRED EMERGENCY GENERATOR	800 HP	dood compastion practices.	0.0007 LB/HP-H	BACT-PSD
N-0185	MAG PELLET LLC	04/24/2014	5/13/2016	DIESEL FIRE PUMP	300 HP		0.15 G/HP-H	BACT-PSD
-0114	CRONUS CHEMICALS, LLC	09/05/2014	5/5/2016	Emergency Generator	3755 HP	Tier IV standards for non-road engines at 40 CFR	0.1 G/KW-H	BACT-PSE
R-0009	ENERGY ANSWERS ARECIBO PUERTO RICO RENEWABLE ENERGY		5/5/2016	Emergency Diesel Generator	0	1039.102, Table 7.	0.15 G/B-HP-H	BACT-PSD
k-0009 1-0180	MIDWEST FERTILIZER CORPORATION	06/04/2014	5/5/2016	DIESEL FIRED EMERGENCY GENERATOR	3600 BHP	GOOD COMBUSTION PRACTICES	0.15 G/B-HP-H	BACT-PSL BACT-PSL
N-0180 N-0179	OHIO VALLEY RESOURCES, LLC	09/25/2013	5/5/2016	DIESEL FIRED EMERGENCY GENERATOR	4690 B-HP	GOOD COMBUSTION PRACTICES	0.15 G/B-HP-H	BACT-PSD BACT-PSD
N-0179 N-0173								
N-01/3	MIDWEST FERTILIZER CORPORATION	06/04/2014	5/4/2016	DIESEL FIRED EMERGENCY GENERATOR	3600 BHP	GOOD COMBUSTION PRACTICES	0.15 G/BHP-H	BACT-PSD
<b>PM - Total</b> OH-0387	INTEL OHIO SITE	09/20/2022	4/25/2023	5,051 bhp (3,768 kWm) Diesel-Fired Emergency Generators: P001 through P	5051 HP	Certified to meet Tier 2 standards and good combustion	0.2 G/KW-H	BACT-PSD
*IN-0359	NUCOR STEEL	03/30/2023	4/11/2023	Emergency Generator (CC-GEN1)	3000 Horsepower	practices certified engine	0.15 G/HP-H	BACT-PSD
(S-0036	WESTAR ENERGY - EMPORIA ENERGY CENTER	03/30/2023	3/1/2023	Caterpillar C18DITA Diesel Engine Generator	900 BHP	utilize efficient combustion/design technology	0.066 G/BHP-H	BACT-PSE BACT-PSE
-0133	LINCOLN LAND ENERGY CENTER	07/29/2022	12/6/2022	Emergency Engines	1250 kW	utilize efficient compustion, design technology	0.2 GRAMS	BACT-PSE
NE-0064	NORFOLK CRUSH, LLC	11/21/2022		Emergency Fire Water Pump Engine 1	510 hp		0.15 G/HP-HR	BACT-PSD
VI-0300	NEMADJI TRAIL ENERGY CENTER	09/01/2020	9/16/2022		1490 HP	Limited to operate 500 hours/year, sulfur content of the		BACT-PSD
W10500		05/01/2020	5/10/2022		1450 11	diesel fuel oil fired may not exceed 15 ppm, and operate and maintain according to the manufacturer's recommendations.		DACTION
VI-0294	CARDINAL FG COMPANY	08/26/2019	9/16/2022	P10- Diesel emergency Generator	0		0.05 G/B-HP-H	BACT-PSD
K-0088	LIQUEFACTION PLANT	07/07/2022	8/16/2022	Diesel Fire Pump Engine	27.9 Gal/hr	Good Combustion Practices; Limited Operation; 40 CFR 60 Subpart IIII	0.19 G/HP-HR	BACT-PSD
	GAS TREATMENT PLANT	08/13/2020	8/16/2022	One (1) Black Start Generator Engine	186.6 gph	Good combustion practices, ULSD, and limit operation to 500 hours per year.	0.045 G/HP-HR	BACT-PSE
WV-0033	MAIDSVILLE	01/05/2022	6/28/2022	Emergency Generator	2100 hp	Clean Fuels and Good Combustion Practices.	0.23 LB/HR	BACT-PSD
WV-0033	MAIDSVILLE	01/05/2022	6/28/2022	Fire Water Pump	240 bhp	Clean Fuels & Good Combustion Practices	0.08 LB/HR	BACT-PSD
VI-0286	SIO INTERNATIONAL WISCONSIN, INCENERGY PLANT	04/24/2018	3/8/2022	P42 -Diesel Fired Emergency Generator	0	Good Combustion Practices and The Use of Ultra-low Sulfur Fuel	17 G/KWH	BACT-PSE
VI-0284	SIO INTERNATIONAL WISCONSIN, INCENERGY PLANT	04/24/2018	3/8/2022	Diesel-Fired Emergency Generators	0	The Use of Ultra-Low Sulfur Fuel and Good Combustion Practices	0.17 G/KWH	BACT-PSD
L-0371	SHADY HILLS COMBINED CYCLE FACILITY	06/07/2021	3/4/2022	1,500 kW Emergency Diesel Generator	14.82 MMBtu/hour		0.2 G/KW-HOUR	BACT-PSE
A-0379	SHINTECH PLAQUEMINES PLANT 1	05/04/2021	3/4/2022	VCM Unit Emergency Generator A	1389 hp	Good combustion practices/gaseous fuel burning.	0.4 G/HP-HR	BACT-PSE
A-0379	SHINTECH PLAQUEMINES PLANT 1	05/04/2021	3/4/2022	C/A Emergency Generator B	1800 hp	Good combustion practices/gaseous fuel burning.	0.4 G/HP-HR	BACT-PSE
C-0193	MERCEDES BENZ VANS, LLC	04/15/2016	9/10/2021	Emergency Generators and Fire Pump	1500 hp	Meet emission standards of 40 CFR 60, Subpart IIII	100 HRS/YR	BACT-PSD
/1-0442	THOMAS TOWNSHIP ENERGY, LLC	08/21/2019	8/9/2021	FGEMENGINE	1100 KW	Good combustion practices and ultra low sulfur diesel	0.04 G/HP-H	BACT-PSD
N-0317	RIVERVIEW ENERGY CORPORATION	06/11/2019	5/26/2021	Emergency generator EU-6006	2800 HP	Tier II diesel engine	0.2 G/KWH	BACT-PSD
N-0317	RIVERVIEW ENERGY CORPORATION	06/11/2019	5/26/2021		750 HP	Engine that complies with Table 4 to Subpart III of Part	0.2 G/KWH	BACT-PSE
IA-0117	SHELL ROCK SOY PROCESSING	03/17/2021	4/20/2021	Emergency Fire Pump Engine	510 bhn	00	0.17 LB/HR	BACT-PSE
I-0130	JACKSON ENERGY CENTER	12/31/2018	4/20/2021		1500 kW		0.17 LB/HK 0.2 G/KW-HR	BACT-PSL BACT-PSL
K-0130	DONLIN GOLD PROJECT		4/16/2020		1500 kWe	Clean Fuel and Good Combustion Practices	0.25 G/KW-HR	BACT-PSL BACT-PSL
		06/30/2017		Black Start and Emergency Internal Cumbustion Engines				
K-0084	DONLIN GOLD PROJECT	06/30/2017	4/16/2020	Twelve (12) Large ULSD/Natural Gas-Fired Internal Combustion Engines	143.5 MMBtu/hr	Clean Fuel and Good Combustion Practices	0.29 G/KW-HR (ULSD)	BACT-PSE
A-0291	HICKORY RUN ENERGY STATION	04/23/2013	3/2/2020	EMERGENCY GENERATOR	7.8 MMBTU/H		0.02 TPY	OTHER CA
AL-0318	TALLADEGA SAWMILL	12/18/2017	10/11/2019		0		0	N/A
OH-0378	PTTGCA PETROCHEMICAL COMPLEX	12/21/2018	6/19/2019	Emergency Diesel-fired Generator Engine (P007)	3353 HP	certified to the meet the emissions standards in Table 4 of 40 CFR Part 60, Subpart IIII, shall employ good combustion practices per the manufacturer's operating manual	1.1 LB/H	BACT-PSD
0H-0378	PTTGCA PETROCHEMICAL COMPLEX	12/21/2018	6/19/2019	1,000 kW Emergency Generators (P008 - P010)	1341 HP	certified to the meet the emissions standards in Table 4 of 40 CFR Part 60, Subpart IIII, shall employ good combustion practices per the manufacturerâ€ <sup>ws</sup> operating manual	0.44 LB/H	BACT-PSI
DH-0377	HARRISON POWER	04/19/2018	6/19/2019	Emergency Diesel Generator (P003)	1860 HP	Good combustion practices (ULSD) and compliance with 40 CFR Part 60, Subpart IIII	0.62 LB/H	BACT-PSD
DH-0375	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	11/07/2017	6/19/2019	Emergency Diesel Generator Engine (P001)	2206 HP	Good combustion design	0.73 LB/H	BACT-PSE
	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	11/07/2017	6/19/2019	Emergency Diesel Fire Pump Engine (P002)	700 HP	Good combustion design	0.23 LB/H	BACT-PSE
	GUERNSEY POWER STATION LLC	10/23/2017	., .,	Emergency Generators (2 identical, P004 and P005)	2206 HP	Certified to the meet the emissions standards in 40 CFR	0.73 LB/H	BACT-PSE
		10, 20, 2017	0, 19, 2019		2200	89.112 and 89.113 purces to 40 CFR 60.4205(b) and 60.4202(a)(2). Good combustion practices per the manufacturerà€™s	5.75 LUTT	5.101-136
						Good compustion practices per the manufacturera€ <sup>™</sup> s operating manual.		

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RBLCID		Permit Issuance Date	Date Last Updated	Process Name	Throughput	Control Method Description	Emission Limit EMISSION_LIMIT_1_	A\ BASIS
OH-0363	NTE OHIO, LLC	11/05/2014	4/1/2019	Emergency generator (P002)	1100 KW	Emergency operation only, < 500 hours/year each for maintenance checks and readiness testing designed to	0.77 LB/H	BACT-PSD
*PA-0313		07/27/2047	2/20/2010	Free Constant	2500 kk -	meet NSPS Subpart IIII	0.2.6	
	FIRST QUALITY TISSUE LOCK HAVEN PLT	07/27/2017		Emergency Generator	2500 bhp		0.2 G	
L-0129	CPV THREE RIVERS ENERGY CENTER	07/30/2018		Emergency Engines	0		0	BACT-PSD
A-0311	MOXIE FREEDOM GENERATION PLANT	09/01/2015		Emergency Generator	0		0.04 G/HP-HR	BACT-PSD
A-0311	MOXIE FREEDOM GENERATION PLANT	09/01/2015		Fire Pump Engine	0		0.2 G/HP-HR	BACT-PSD
A-0310	CPV FAIRVIEW ENERGY CENTER	09/02/2016	12/21/2018	Emergency Generator Engines	0		0.15 G/BHP-HR	BACT-PSD
1-0263	MIDWEST FERTILIZER COMPANY LLC	03/23/2017	8/22/2017	EMERGENCY GENERATORS (EU014A AND EU-014B)	3600 HP EACH	GOOD COMBUSTION PRACTICES	0.15 G/HP-H EACH	BACT-PSD
L-0349	STATOIL GULF SERVICES, LLC	08/14/2014	7/7/2016	Source Wide Limits	0	PSD Avoidance	10 TONS PER YEAR	BACT-PSD
L-0356	OKEECHOBEE CLEAN ENERGY CENTER	03/09/2016	7/6/2016	Three 3300-kW ULSD emergency generators	0	Use of clean fuel	0.2 G / KW-HR	BACT-PSD
L-0347	ANADARKO PETROLEUM CORPORATION - EGOM	09/16/2014		Main Propulsion Generator Diesel Engines	9910 hp	Use of good combustion practices based on the most recent manufacturer's specifications issued for engines and with turbocharger, aftercooler, and high injection	0.43 G/KW-H	BACT-PSD
L-0347	ANADARKO PETROLEUM CORPORATION - EGOM	09/16/2014	7/6/2016	Emergency Diesel Engine	3300 hp	pressure Use of good combustion practices based on the most recent manufacturer's specifications issued for engines	0	BACT-PSD
			- /- /			and with turbocharger, aftercooler, and high injection pressure		
L-0346	LAUDERDALE PLANT	04/22/2014	5/5/2016	Four 3100 kW black start emergency generators		Good combustion practice	0.2 GRAMS PER KW-HR	BACT-PSD
IA-0106	CF INDUSTRIES NITROGEN, LLC - PORT NEAL NITROGEN COMPLE	07/12/2013	5/4/2016	Emergency Generators	180 GAL/H	good combustion practices	0.2 G/KW-H	BACT-PSD
PM <sub>10</sub> - Filt *TX-0939	erable ORANGE COUNTY ADVANCED POWER STATION	03/13/2023	4/3/2023	EMERGENCY GENERATOR	18.7 MMBTU/HR	GOOD COMBUSTION PRACTICES, LIMITED TO 100 HR/YR	0.0003 LB/HP HR	BACT-PSD
TX-0933	NACERO PENWELL FACILITY	11/17/2021	3/8/2022	Emergency Generators	0	limited to 100 hours per year of non-emergency operation. EPA Tier 2 (40 CFR § 1039.101) exhaust emission standards	0	BACT-PSD
TV 0045		02/47/2024	2/0/2022		0		0.022 6/0000	DACT DCD
TX-0915 TX-0904	UNIT 5 MOTIVA POLYETHYLENE MANUFACTURING COMPLEX	03/17/2021 09/09/2020		DIESEL GENERATOR EMERGENCY GENERATOR	0	LIMITED 500 HR/YR OPERATION 100 HOURS OPERATIONS, Tier 4 exhaust emission standards specified in 40 CFR § 1039.101	0.022 G/HPHR 0	BACT-PSD BACT-PSD
TX-0905	DIAMOND GREEN DIESEL PORT ARTHUR FACILITY	09/16/2020	9/10/2021	EMERGENCY GENERATOR	0	limited to 100 hours per year of non-emergency operation	0	BACT-PSD
TX-0888	ORANGE POLYETHYLENE PLANT	04/23/2020	11/12/2020	EMERGENCY GENERATORS & amp; FIRE WATER PUMP ENGINES	0	well-designed and properly maintained engines and each limited to 100 hours per year of non-emergency	0	BACT-PSD
TX-0876	PORT ARTHUR ETHANE CRACKER UNIT	02/06/2020	11/12/2020	Emergency generator	0	use. Tier 4 exhaust emission standards specified in 40 CFR § 1039.101, limited to 100 hours per year of non- emergency operation	0	BACT-PSD
TX-0876	PORT ARTHUR ETHANE CRACKER UNIT	02/06/2020	11/12/2020	Emergency firewater pumps	0	Tier 3 exhaust emission standards specified in 40 CFR § 89.112, limited to 100 hours per year of non-emergency operation	0	BACT-PSD
KS-0040	JOHNS MANVILLE AT MCPHERSON	12/03/2019	8/25/2020	Emergency Diesel Engines	0	One diesel engine and fire pump subject to NSPS Subpart IIII - Combustion Control and Limited Operating Hours.	0.2 G/KWH	BACT-PSD
AK-0084	DONLIN GOLD PROJECT	06/30/2017	4/16/2020	Twelve (12) Large ULSD/Natural Gas-Fired Internal Combustion Engines	143.5 MMBtu/hr	Clean Fuel and Good Combustion Practices	0.15 G/KW-HR (ULSD)	BACT-PSD
X-0728	PEONY CHEMICAL MANUFACTURING FACILITY	04/01/2015		Emergency Diesel Generator	1500 hp	Minimized hours of operations Tier II engine	0.15 LB/H	OTHER CA
0H-0379	PETMIN USA INCORPORATED	02/06/2019		Emergency Generators (P005 and P006)	3131 HP	Tier IV engine	0.15 LB/H	BACT-PSD
11-0375	FEININ OSA INCORFORATED	02/00/2019	0/19/2019	Energency delierators (F005 and F000)	5151 HF		0.13 LB/H	BACI-F3D
A-0313	ST. CHARLES POWER STATION	08/31/2016	4/28/2017	SCPS Emergency Diesel Generator 1	2584 HP	Good combustion practices Compliance with NESHAP 40 CFR 63 Subpart ZZZZ and NSPS 40 CFR 60 Subpart IIII, and good combustion	0.86 LB/H	BACT-PSD
A-0308	MORGAN CITY POWER PLANT	09/26/2013	4/28/2017	2000 KW Diesel Fired Emergency Generator Engine	20.4 MMBTU/hr	practices (use of ultra-low sulfur diesel fuel). Good combustion and maintenance practices, and compliance with NSPS 40 CFR 60 Subpart IIII	1.06 LB/H	BACT-PSD
N-0185	MAG PELLET LLC	04/24/2014	E/12/2010	DIESEL FIRE PUMP	300 HP	compliance with Nor 5 40 cr it 60 500 part III	0.15 G/HP-H	BACT-PSD
N-0185 AK-0082	POINT THOMSON PRODUCTION FACILITY							BACT-PSD BACT-PSD
		01/23/2015	2/19/2016	Emergency Camp Generators	2695 hp		0.15 GRAMS/HP-H	
AK-0082 AK-0082	POINT THOMSON PRODUCTION FACILITY POINT THOMSON PRODUCTION FACILITY	01/23/2015 01/23/2015		Fine Water Pumps Bulk Tank Generator Engines	610 hp 891 hp		0.15 GRAMS/HP-H 0.15 GRAMS/HP-H	BACT-PSD BACT-PSD
PM <sub>10</sub> - Tot	al							
*MI-0454	LBWL-ERICKSON STATION	12/20/2022	5/15/2023	EUEMGD	4474.2 KW	Good combustion practices, burn ultra-low diesel fuel, and be NSPS compliant.	1 LB/H	BACT-PSD
OH-0387	INTEL OHIO SITE	09/20/2022	4/25/2023	5,051 bhp (3,768 kWm) Diesel-Fired Emergency Generators: P001 through P	5051 HP	Certified to meet Tier 2 standards and good combustion practices	0.07 LB/H	BACT-PSD
MI-0452	MEC SOUTH, LLC	06/23/2022	4/25/2023	EUEMENGINE (South Plant): Emergency engine	1341 HP	Diesel particulate filter, Good Combustion Practices and meeting NSPS Subpart IIII requirements	0.54 LB/H	BACT-PSD
MI-0451	MEC NORTH, LLC	06/23/2022	4/25/2023	EUEMENGINE (North Plant): Emergency engine	1341 HP	Diesel particulate filter, good combustion practices and meeting NSPS Subpart IIII requirements.	0.54 LB/H	BACT-PSD
AR-0177	NUCOR STEEL ARKANSAS	11/21/2022	4/25/2023	SN-230 Galvanizing Line No, 2 Emergency Generator	3634 Horsepower		0.2 G/KW-HR	BACT-PSD
*IN-0359	NUCOR STEEL	03/30/2023	4/11/2023	Emergency Generator (CC-GEN1)	3000 Horsepower	certified engine	0.15 G/HP-H	BACT-PSD
	MAGNOLIA POWER GENERATING STATION UNIT 1	06/03/2022	3/6/2023	Emergency Diesel Generator Engine	2937 hp	Compliance with 40 CFR 60 Subpart IIII, good combustion practices, and use of ultra-low sulfur diesel fuel.	0.15 G/HP-HR	BACT-PSD

RBLCID	Facility Name	Permit Issuance Date	Date Last Updated	Process Name	Throughput	Control Method Description	Emission Limit EMISSION_LIMIT	1 AVBASIS
KS-0036	WESTAR ENERGY - EMPORIA ENERGY CENTER	03/18/2013	3/1/2023	Caterpillar C18DITA Diesel Engine Generator	900 BHP	utilize efficient combustion/design technology	0.066 G/BHP-H	BACT-PSD
LA-0388	LACC LLC US - ETHYLENE PLANT	02/25/2022		Firewater Pump Engine No. 1 and 2	575 hp	Compliance with 40 CFR 60 Subpart IIII	0.23 LB/HR	BACT-PSD
WI-0300	NEMADJI TRAIL ENERGY CENTER	09/01/2020		Emergency Diesel Generator (P07)	1490 HP	Limited to operate 500 hours/year, sulfur content of the	0.15 G/HP-H	BACT-PSD
		03/01/2020	3/10/2022		2450 (11	diesel fuel oil fired may not exceed 15 ppm, and operate and maintain according to the manufacturer's	0.15 0,111 11	5/10/11/55
					0	recommendations.	0.05 G/BHP-H	BACT-PSD
WI-0294 AK-0088	CARDINAL FG COMPANY LIQUEFACTION PLANT	08/26/2019 07/07/2022	9/16/2022 8/16/2022	P10- Diesel emergency Generator Diesel Fire Pump Engine	0 27.9 Gal/hr	Good Combustion Practices; Limited Operation; 40 CFR	0.05 G/BHP-H 0.19 G/HP-HR	BACT-PSD BACT-PSD
MI-0448	GRAYLING PARTICLEBOARD	12/18/2020	9/10/2022		500 h/m	60 Subpart IIII	0.00 10/01	BACT-PSD
MI-0448	GRAYLING PARTICLEBUARD	12/18/2020	8/16/2022	Emergency diesel generator engine (EUEMRGRICE1 in FGRICE)	500 h/yr	Certified Engines, Good Design, Operation, and Combustion Practices, Operational Restrictions/Limited Use	0.66 LB/H	BACI-PSD
MI-0448	GRAYLING PARTICLEBOARD	12/18/2020	8/16/2022	Emergency diesel generator engine (EUEMRGRICE2 in FGRICE)	500 h/yr	Certified Engines, Good Design, Operation, and Combustion Practices, Operational Restrictions/Limited Use	0.22 LB/H	BACT-PSD
MI-0448	GRAYLING PARTICLEBOARD	12/18/2020	8/16/2022	Diesel fire pump engine (EUFIREPUMP in FGRICE)	500 h/yr	Certified Engines, Good Design, Operation, and Combustion Practices, Operational Restrictions/Limited Use	0.18 LB/H	BACT-PSD
IN-0324	MIDWEST FERTILIZER COMPANY LLC	05/06/2022	8/16/2022	emergency generator EU 014a	3600 HP	030	0.15 G/HP-HR	BACT-PSD
IN-0324	MIDWEST FERTILIZER COMPANY LLC	05/06/2022	8/16/2022	fire water pump EU-015	500 HP		0.15 G/HP-HR	BACT-PSD
AK-0085	GAS TREATMENT PLANT	08/13/2020	8/16/2022		186.6 gph	Good combustion practices, ULSD, and limit operation	0.045 G/HP-HR	BACT-PSD
						to 500 hours per year.		DACT DCD
VA-0333 WI-0286	NORFOLK NAVAL SHIPYARD SIO INTERNATIONAL WISCONSIN, INCENERGY PLANT	12/09/2020 04/24/2018	3/8/2022 3/8/2022	One (1) emergency engine generator P42 -Diesel Fired Emergency Generator	2220 HP 0	Good Combustion Practices and The Use of Ultra-low	1.1 LB 0.17 G/KWH	BACT-PSD BACT-PSD
WI-0284	SIO INTERNATIONAL WISCONSIN, INCENERGY PLANT	04/24/2010	2/0/2022	Pixel Fixed Free events of the second	0	Sulfur Fuel The Use of Ultra-Low Sulfur Fuel and Good Combustion	0.17 G/KWH	BACT-PSD
WI-0264	SIO INTERNATIONAL WISCONSIN, INCENERGY PLANT	04/24/2018	3/8/2022	Diesel-Fired Emergency Generators	U	Practices	0.17 0/КМП	BACT-PSD
LA-0383	LAKE CHARLES LNG EXPORT TERMINAL	09/03/2020	3/4/2022	Emergency Engines (EQT0011 - EQT0016)	0	Comply with 40 CFR 60 Subpart IIII	0	BACT-PSD
OH-0383	PETMIN USA INCORPORATED	07/17/2020	3/4/2022	Diesel-fired emergency fire pumps (2) (P009 and P010)	3131 HP	Tier IV engine and Good combustion practices	0.15 G/B-HP-H	BACT-PSD
LA-0382	BIG LAKE FUELS METHANOL PLANT	04/25/2019	3/4/2022	Emergency Engines (EQT0014 - EQT0017)	0	Comply with standards of 40 CFR 60 Subpart III	0	BACT-PSD
LA-0379	SHINTECH PLAQUEMINES PLANT 1	05/04/2021	3/4/2022	VCM Unit Emergency Generator A	1389 hp	Good combustion practices/gaseous fuel burning.	0.4 G/HP-HR	BACT-PSD
LA-0379	SHINTECH PLAQUEMINES PLANT 1	05/04/2021	3/4/2022	C/A Emergency Generator B	1800 hp	Good combustion practices/gaseous fuel burning.	0.4 G/HP-HR	BACT-PSD
MI-0447	LBWLERICKSON STATION	01/07/2021	9/10/2021	EUEMGDemergency engine	4474.2 KW	Good combustion practices, burn ultra-low diesel fuel and be NSPS compliant.	1 LB/H	BACT-PSD
SC-0193	MERCEDES BENZ VANS, LLC	04/15/2016	9/10/2021	Emergency Generators and Fire Pump	1500 hp	Must meet the standards of 40 CFR 60, Subpart III	100 HR/YR	BACT-PSD
LA-0364	FG LA COMPLEX	01/06/2020	8/9/2021	Emergency Generator Diesel Engines	550 hp	Compliance with the limitations imposed by 40 CFR 63	0	BACT-PSD
						Subpart IIII and operating the engine in accordance with the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.		
LA-0364	FG LA COMPLEX	01/06/2020	8/9/2021	Emergency Fire Water Pumps	550 hp	Compliance with the limitations imposed by 40 CFR 63 Subpart IIII and operating the engine in accordance with the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.	0	BACT-PSD
MI-0442	THOMAS TOWNSHIP ENERGY, LLC	08/21/2019	8/9/2021	FGEMENGINE	1100 KW	Good combustion practices and ultra low sulfur diesel	7.85 LB/1000 GAL	BACT-PSD
MI-0441	LBWLERICKSON STATION	12/21/2018	8/9/2021	EUEMGD1A 1500 HP diesel fueled emergency engine	1500 HP	Good combustion practices, burn ultra-low sulfur diesel	0.69 LB/H	BACT-PSD
MI-0441	LBWLERICKSON STATION	12/21/2018	8/9/2021	EUEMGD2-A 6000 HP diesel fuel fired emergency engine	6000 HP	fuel and be NSPS compliant. Good combustion practices, burn ultra low sulfur diesel fuel, and be NSPS compliant.	2.7 LB/H	BACT-PSD
MA-0043	MIT CENTRAL UTILITY PLANT	06/21/2017	8/9/2021	Cold Start Engine	19.04 MMBTU/HR	•	0.4 LB/HR	BACT-PSD
LA-0350	BENTELER STEEL TUBE FACILITY	03/28/2018	8/6/2021	emergency generators (3 units) EQT0039, EQT0040, EQT0041	0	Comply with 40 CFR 60 Subpart III	0	BACT-PSD
LA-0346	GULF COAST METHANOL COMPLEX	01/04/2018	8/6/2021	emergency generators (4 units)	13410 hp (each)		0	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021	New Pumphouse (XB13) Emergency Generator #1 (EP 08-05)	2922 HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0.15 G/HP-HR	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021	Tunnel Furnace Emergency Generator (EP 08-06)	2937 HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0.15 G/HP-HR	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021	Caster B Emergency Generator (EP 08-07)	2937 HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0.15 G/HP-HR	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021	Air Separation Unit Emergency Generator (EP 08-08)	700 HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0.15 G/HP-HR	BACT-PSD
IN-0317	RIVERVIEW ENERGY CORPORATION	06/11/2019	5/26/2021	Emergency generator EU-6006	2800 HP	Tier II diesel engine	0.2 G/KWH	BACT-PSD
IN-0317	RIVERVIEW ENERGY CORPORATION	06/11/2019	5/26/2021	Emergency fire pump EU-6008	750 HP	Engine that complies with Table 4 to Subpart IIII of Part	0.2 G/KWH	BACT-PSD
VA-0332	CHICKAHOMINY POWER LLC	06/24/2019	5/19/2021	Emergency Diesel Generator - 300 kW	500 H/YR	60 good combustion practices, high efficiency design, and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	0.15 G/HP-HR	BACT-PSD
AR-0161	SUN BIO MATERIAL COMPANY	09/23/2019	5/5/2021	Emergency Engines	0	a maximum surrur content of 15 ppmw. Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	0.02 G/KW-H	BACT-PSD
*LA-0315	G2G PLANT	05/23/2014	4/5/2021	Emergency Diesel Generator 1	5364 HP	Proper design and operation; use of ultra-low sulfur	1.76 LB/H	BACT-PSD
2.0010		, 23, 2014	., .,			diesel		2.101.150

RBLCID	Facility Name	Permit Issuance Date	Date Last Updated	Process Name	Throughput	Control Method Description	Emission Limit	EMISSION_LIMIT_1	A\ BASIS
	G2G PLANT	05/23/2014	4/5/2021	Emergency Diesel Generator 2	5364 HP	Proper design and operation; use of ultra-low sulfur		LB/H	BACT-PSD
LA-0315	G2G PLANT	05/23/2014	4/5/2021	Fire Pump Diesel Engine 1	751 HP	diesel Proper design and operation; use of ultra-low sulfur	0.25	LB/H	BACT-PSD
*LA-0315	G2G PLANT	05/23/2014	4/5/2021	Fire Pump Diesel Engine 2	751 HP	diesel Proper design and operation; use of ultra-low sulfur	0.25	LB/H	BACT-PSD
KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021	EP 10-02 - North Water System Emergency Generator	2922 HP	diesel This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15	G/HP-HR	BACT-PSD
KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021	EP 10-03 - South Water System Emergency Generator	2922 HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15	G/HP-HR	BACT-PSD
КҮ-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021	EP 10-04 - Emergency Fire Water Pump	920 HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15	G/HP-HR	BACT-PSD
KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021	EP 10-07 - Air Separation Plant Emergency Generator	700 HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15	G/HP-HR	BACT-PSD
(Y-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021	EP 10-01 - Caster Emergency Generator	2922 HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15	G/HP-HR	BACT-PSD
KY-0109	FRITZ WINTER NORTH AMERICA, LP	10/24/2016	1/25/2021	Emergency Generators #1, #2, & #3 (EU72, EU73, & EU74)	53.6 gal/hr	The permittee shall prepare and maintain for EU72, EU73, and EU74, within 90 days of startup, a good combustion and operation practices plan (GCOP) that defines, measures and verifies the use of operational and design practices determined as BACT for minimizing CO, VOC, PM, PM10 and PM2.5 emissions. Any revisions requested by the Division shall be made and the plan shall be maintained on site. The permittee shall operate according to the provisions of this plan at all times, including periods of startup, shutdown, and maffunction. The plan shall be incorporated into the plant standard operating procedures (SOP) and shall be made available for the Divisions 6 <sup>w</sup> sinspection. The plan shall include, but not be limited to: i. A list of combustion optimization practices and a means of verifying the practices have occurred. ii. A list of combustion and operation practices to be used to lower energy consumption and a means of verifying the practices have occurred. iii. A list of the design choices determined to be BACT and verification that designs were implemented in the final construction.		G/HP-HR (EU72 &EL	73 BACT-PSD
	INDECK NILES, LLC BIG RIVER STEEL LLC	11/26/2019 06/09/2019		EUEMENGINE (diesel fuel emergency engine) Emergency Engines	22.68 MMBTU/H 0	Good combustion practices Good Operating Practices, limited hours of operation,		LB/H G/KW-HR	BACT-PSD BACT-PSD
MD-0042	WILDCAT POINT GENERATION FACILITY	04/08/2014	8/12/2020	EMERGENCY GENERATOR 1	2250 KW	Compliance with NSPS Subpart IIII EXCLUSIVE USE OF ULSD FUEL, GOOD COMBUSTION PRACTICES, LIMITED HOURS OF OPERATION, AND DESIGNED TO ACHIEVE EMISSION LIMITS	0.15	G/HP-H	BACT-PSD
	ST. JAMES METHANOL PLANT	06/30/2017	5/1/2020		650 horsepower	Compliance with NSPS Subpart IIII		LB/HR	BACT-PSD
	ST. JAMES METHANOL PLANT	06/30/2017	5/1/2020	DEG1-13 - Diesel Fired Emergency Generator Engine (EQT0012)	1474 horsepower	Compliance with NSPS Subpart IIII		LB/HR	BACT-PSD
AK-0084	DONLIN GOLD PROJECT	06/30/2017		Black Start and Emergency Internal Cumbustion Engines	1500 kWe	Clean Fuel and Good Combustion Practices		G/KW-HR	BACT-PSD
AK-0084 *AL-0318	DONLIN GOLD PROJECT TALLADEGA SAWMILL	06/30/2017 12/18/2017		Twelve (12) Large ULSD/Natural Gas-Fired Internal Combustion Engines	143.5 MMBtu/hr 0	Clean Fuel and Good Combustion Practices	0.29	G/KW-HR (ULSD)	BACT-PSD N/A
	PITIGCA PETROCHEMICAL COMPLEX	12/18/2017		250 Hp Emergency Cl, Diesel-fired RICE Emergency Diesel-fired Generator Engine (P007)	3353 HP	certified to the meet the emissions standards in Table 4 of 40 CFR Part 60, Subpart IIII, shall employ good combustion practices per the manufacturer〙s operating manual	-	LB/H	BACT-PSD
	PTTGCA PETROCHEMICAL COMPLEX	12/21/2018		1,000 kW Emergency Generators (P008 - P010)	1341 HP	certified to the meet the emissions standards in Table 4 of 40 CFR Part 60, Subpart IIII, shall employ good combustion practices per the manufacturer〙s operating manual		LB/H	BACT-PSD
	HARRISON POWER	04/19/2018		Emergency Diesel Generator (P003)	1860 HP	Good combustion practices (ULSD) and compliance with 40 CFR Part 60, Subpart IIII		LB/H	BACT-PSD
	IRONUNITS LLC - TOLEDO HBI	02/09/2018		Emergency diesel-fired generator (P007)	2682 HP	Comply with NSPS 40 CFR 60 Subpart IIII		LB/H	BACT-PSD
OH-0375	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	11/07/2017	6/19/2019		2206 HP	Good combustion design		LB/H	BACT-PSD
OH-0375 OH-0374	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER GUERNSEY POWER STATION LLC	11/07/2017 10/23/2017	6/19/2019 6/19/2019	Emergency Diesel Fire Pump Engine (P002) Emergency Generators (2 identical, P004 and P005)	700 HP 2206 HP	Good combustion design Certified to the meet the emissions standards in 40 CFR 89.112 and 89.113 pursuant to 40 CFR 60.4205(b) and 60.4202(a)(2). Good combustion practices per the manufacturer〙s operating manual.		LB/H LB/H	BACT-PSD BACT-PSD
OH-0322	OREGON ENERGY CENTER	09/27/2017	6/10/2010	Emergency generator (P003)	1529 HP	Ultra low sulfur diesel fuel	0 5	LB/H	BACT-PSD
	TRUMBULL ENERGY CENTER	09/27/2017		Emergency generator (P003) Emergency generator (P003)	1529 HP	Ultra low sulfur diesel fuel		LB/H	BACT-PSD BACT-PSD
	PALLAS NITROGEN LLC	04/19/2017		Emergency Generator (P009)	5000 HP	good combustion control and operating practices and engines designed to meet the stands of 40 CFR Part 60, Subpart IIII		LB/H	BACT-PSD BACT-PSD

RBLCID	Facility Name	Permit Issuance Date	Date Last Updated	Process Name	Throughput	Control Method Description	Emission Limit EN		L_AV BASIS
OH-0367	SOUTH FIELD ENERGY LLC	09/23/2016	6/19/2019	Emergency generator (P003)	2947 HP	State-of-the-art combustion design	0.97 LB	/н	BACT-PSD
DH-0366	CLEAN ENERGY FUTURE - LORDSTOWN, LLC	08/25/2015	6/19/2019		2346 HP	State-of-the-art combustion design	0.77 LB		BACT-PSD
A-0331	CALCASIEU PASS LNG PROJECT	09/21/2018	6/19/2019		634 kW	Good combustion and operating practices.	0.3 G/		BACT-PSD
LA-0331	CALCASIEU PASS LNG PROJECT	09/21/2018		Large Emergency Engines (>50kW)	5364 HP	Good combustion and operating practices.	0.2 G/		BACT-PSD
VA-0328	C4GT, LLC	04/26/2018	6/19/2019	Emergency Diesel GEN	500 H/YR	good combustion practices and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	0.15 G/	нрн	BACT-PSD
VA-0325	GREENSVILLE POWER STATION	06/17/2016	6/19/2019	DIESEL-FIRED EMERGENCY GENERATOR 3000 kW (1)	0	Ultra Low Sulfur Diesel/Fuel (15 ppm max)	0.4 G/	′KW	N/A
OH-0363	NTE OHIO, LLC	11/05/2014	4/1/2019	Emergency generator (P002)	1100 KW	Emergency operation only, < 500 hours/year each for maintenance checks and readiness testing designed to meet NSPS Subpart IIII	0.77 LB		BACT-PSD
OH-0360	CARROLL COUNTY ENERGY	11/05/2013	4/1/2019	Emergency generator (P003)	1112 KW	Purchased certified to the standards in NSPS Subpart IIII	0.49 LB	/H	BACT-PSD
MI-0435	BELLE RIVER COMBINED CYCLE POWER PLANT	07/16/2018	2/19/2019	EUEMENGINE: Emergency engine	2 MW	State of the art combustion design	1.18 I B	/H	BACT-PSD
MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	06/29/2018		EUEMENGINE (North Plant): Emergency Engine	1341 HP	Diesel particulate filter, good combustion practices and	0.54 LB	/н	BACT-PSD
MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	06/29/2018	2/19/2019	EUEMENGINE (South Plant): Emergency Engine	1341 HP	meeting NSPS Subpart IIII requirements. Diesel particulate filter, good combustion practices and	0.54 LB	/H	BACT-PSD
						meeting NSPS Subpart IIII requirements.			
PA-0311	MOXIE FREEDOM GENERATION PLANT	09/01/2015		Emergency Generator	0		0.04 G/		BACT-PSD
PA-0311	MOXIE FREEDOM GENERATION PLANT	09/01/2015		Fire Pump Engine	0		0.2 G/		BACT-PSD
PA-0309	LACKAWANNA ENERGY CTR/JESSUP	12/23/2015		2000 kW Emergency Generator	0		0.025 GM		BACT-PSD
MD-0044	COVE POINT LNG TERMINAL	06/09/2014	5/14/2018	EMERGENCY GENERATOR	1550 HP	EXCLUSIVE USE OF ULSD FUEL, GOOD COMBUSTION PRACTICES AND DESIGNED TO ACHIEVE EMISSION LIMITS	0.17 G/	'HP-H	BACT-PSD
LA-0323	MONSANTO LULING PLANT	01/09/2017	5/11/2018	Fire Water Diesel Pump No. 3 Engine	600 hp	Proper operation and limits on hours operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0		BACT-PSD
LA-0323	MONSANTO LULING PLANT	01/09/2017	5/11/2018	Fire Water Diesel Pump No. 4 Engine	600 hp	Proper operation and limits on hours of operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0		BACT-PSD
OK-0156	NORTHSTAR AGRI IND ENID	07/31/2013	5/11/2018	Fire Pump Engine	550 hp	Subpart in	0.2 GM	M/HP-HR	BACT-PSD
WV-0027	INWOOD	09/15/2013	5/1/2018	Emergency Generator - ESDG14	900 bhp	ULSD	0.2 G/		BACT-PSD
NJ-0084	PSEG FOSSIL LLC SEWAREN GENERATING STATION	03/10/2016		Diesel Fired Emergency Generator	44 H/YR	use of ULSD a clean burning fuel, and limited hours of operation	0.26 LB		BACT-PSD
MI-0423	INDECK NILES, LLC	01/04/2017	3/8/2018	EUEMENGINE (Diesel fuel emergency engine)	22.68 MMBTU/H	Good combustion practices.	1.58 LB	/H	BACT-PSD
MI-0425	GRAYLING PARTICLEBOARD	05/09/2017		EUEMRGRICE1 in FGRICE (Emergency diesel generator engine)	500 H/YR	Certified engines, good design, operation and	0.66 LB		BACT-PSD
1011-0423	GRATLING FARTICLEBOARD	03/03/2017	11/13/2017		500 H/TK	combustion practices. Operational restrictions/limited	0.00 Eb	yn	BACT-F3D
MI-0425	GRAYLING PARTICLEBOARD	05/09/2017	11/15/2017	EUEMRGRICE2 in FGRICE (Emergency Diesel Generator Engine)	500 H/YR	Certified engines. Good design, operation and combustion practices. Operational restrictions/limited use.	0.22 LB	/Н	BACT-PSD
MI-0425	GRAYLING PARTICLEBOARD	05/09/2017	11/15/2017	EUFIREPUMP in FGRICE (Diesel fire pump engine)	500 H/YR	Certified engines. Good design, operation and combustion practices. Operational restrictions/limited use.	0.18 LB	/H	BACT-PSD
IN-0263	MIDWEST FERTILIZER COMPANY LLC	03/23/2017	8/22/2017	EMERGENCY GENERATORS (EU014A AND EU-014B)	3600 HP EACH	GOOD COMBUSTION PRACTICES	0.15 G/	HP-H EACH	BACT-PSD
MI-0421	GRAYLING PARTICLEBOARD	08/26/2016		Emergency Diesel Generator Engine (EUEMRGRICE in FGRICE)	500 H/YR	Certified engines, good design, operation and combustion practices. Operational restrictions/limited use.	1.41 LB		BACT-PSD
MI-0421	GRAYLING PARTICLEBOARD	08/26/2016	7/20/2017	Dieself fire pump engine (EUFIREPUMP in FGRICE)	500 H/YR	Certified engines. Good design, operation and combustion practices. Operational restrictions/limited use.	0.18 LB	/Н	BACT-PSD
LA-0318	FLOPAM FACILITY	01/07/2016	4/28/2017	Diesel Engines	0	Complying with 40 CFR 60 Subpart IIII	0		BACT-PSD
LA-0317	METHANEX - GEISMAR METHANOL PLANT	12/22/2016	4/28/2017	Emergency Generator Engines (4 units)	0	complying with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZ	0		BACT-PSD
LA-0317	METHANEX - GEISMAR METHANOL PLANT	12/22/2016	4/28/2017	Firewater pump Engines (4 units)	896 hp (each)	complying with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	0		BACT-PSD
LA-0316	CAMERON LNG FACILITY	02/17/2017	4/28/2017	emergency generator engines (6 units)	3353 hp	Complying with 40 CFR 60 Subpart IIII	0		BACT-PSD
LA-0309	BENTELER STEEL TUBE FACILITY	06/04/2015	4/28/2017	Emergency Generator Engines	2922 hp (each)	Complying with 40 CFR 60 Subpart IIII	0.2 G/	KW-HR	BACT-PSD
LA-0307	MAGNOLIA LNG FACILITY	03/21/2016	4/28/2017	Diesel Engines	0	good combustion practices, Use ultra low sulfur diesel, and comply with 40 CFR 60 Subpart IIII	0		BACT-PSD
LA-0305	LAKE CHARLES METHANOL FACILITY	06/30/2016	4/28/2017	Diesel Engines (Emergency)	4023 hp	Complying with 40 CFR 60 Subpart III	0		BACT-PSD
LA-0296	LAKE CHARLES CHEMICAL COMPLEX LDPE UNIT	05/23/2014		Emergency Diesel Generators (EQTs 622, 671, 773, 850, 994, 995, 996, 1033,	2682 HP	Compliance with 40 CFR 60 Subpart IIIII; operating the engine in accordance with the engine manufactureråC <sup>w</sup> , instructions and/or written procedures (consistent with safe operation) designed to maximize combustion efficiency and minimize fuel usage.	0.88 LB,	/HR	BACT-PSD
AR-0140	BIG RIVER STEEL LLC	09/18/2013	12/13/2016	EMERGENCY GENERATORS	1500 KW	GOOD OPERATING PRACTICES, LIMITED HOURS OF	0.04 G/	′кw-н	BACT-PSD
LA-0288	LAKE CHARLES CHEMICAL COMPLEX	05/23/2014	9/14/2016	Emergency Diesel Generators (EQT 629, 639, 838, 966, & 1264)	2682 HP	OPERATION, COMPLIANCE WITH NSPS SUBPART IIII Comply with 40 CFR 60 Subpart IIII; operate the engine in accordance with the engine manufacturerafe <sup>ws</sup> instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.	0.88 LB,	/HR	BACT-PSD

RBLCID		Permit Issuance Date	Date Last Updated	Process Name	Throughput	Control Method Description	Emission Limit EMISSION LIMIT 1	A\ BASIS
MD-0043		07/01/2014	7/25/2016	EMERGENCY GENERATOR	1300 HP	GOOD COMBUSTION PRACTICES, LIMITED HOURS OF	0.17 G/HP-H	BACT-PSD
						OPERATION, AND		
						EXCLUSIVE USE OF ULSD		
MI-0406	RENAISSANCE POWER LLC	11/01/2013	7/7/2016	FG-EMGEN7-8; Two (2) 1,000kW diesel-fueled emergency reciprocating inter	1000 kW	Good combustion practices.	0.15 G/B-HP-H	BACT-PSD
FL-0347	ANADARKO PETROLEUM CORPORATION - EGOM	09/16/2014	7/6/2016	Main Propulsion Generator Diesel Engines	9910 hp	Use of good combustion practices based on the most	0.24 G/KW-H	BACT-PSD
						recent manufacturer's specifications issued for engines and with turbocharger, aftercooler, and high injection pressure		
IL-0114	CRONUS CHEMICALS, LLC	09/05/2014	5/5/2016	Emergency Generator	3755 HP	Tier IV standards for non-road engines at 40 CFR 1039.102, Table 7.	0.1 G/KW-H	BACT-PSD
PR-0009	ENERGY ANSWERS ARECIBO PUERTO RICO RENEWABLE ENERGY		5/5/2016	Emergency Diesel Generator	0		0.15 G/B-HP-H	BACT-PSD
MA-0039		01/30/2014	5/5/2016	Emergency Engine/Generator	7.4 MMBTU/H		0.15 GM/BHP-H	BACT-PSD
IN-0180	MIDWEST FERTILIZER CORPORATION	06/04/2014	5/5/2016	DIESEL FIRED EMERGENCY GENERATOR	3600 BHP	GOOD COMBUSTION PRACTICES	0.15 G/B-HP-H	BACT-PSD
IN-0179	OHIO VALLEY RESOURCES, LLC	09/25/2013	5/4/2016	DIESEL-FIRED EMERGENCY GENERATOR	4690 B-HP	GOOD COMBUSTION PRACTICES	0.15 G/B-HP-H	BACT-PSD
IN-0173	MIDWEST FERTILIZER CORPORATION	06/04/2014	5/4/2016	DIESEL FIRED EMERGENCY GENERATOR	3600 BHP	GOOD COMBUSTION PRACTICES	0.15 G/BHP-H	BACT-PSD
LA-0272	AMMONIA PRODUCTION FACILITY	03/27/2013	5/4/2016	EMERGENCY DIESEL GENERATOR (2205-B)	1200 HP	Compliance with 40 CFR 60 Subpart IIII; good combustion practices.	0	BACT-PSD
OH-0355	GENERAL ELECTRIC AVIATION, EVENDALE PLANT	05/07/2013	5/4/2016	Test Cell 1 for Aircraft Engines and Turbines	0	compusción practices.	0.038 LB/MMBTU	N/A
OH-0355	GENERAL ELECTRIC AVIATION, EVENDALE PLANT	05/07/2013	5/4/2016	Test Cell 2 for Aircraft Engines and Turbines	0		0.038 LB/MMBTU	N/A
IA-0106	CF INDUSTRIES NITROGEN, LLC - PORT NEAL NITROGEN COMPLE		5/4/2016	Emergency Generators	180 GAL/H	good combustion practices	0.2 G/KW-H	BACT-PSD
OH-0352	OREGON CLEAN ENERGY CENTER	06/18/2013	5/4/2016	Emergency generator	2250 KW	Purchased certified to the standards in NSPS Subpart IIII	0.99 LB/H	BACT-PSD
<u>PM<sub>2.5</sub> - Fi</u>								
*TX-0939	ORANGE COUNTY ADVANCED POWER STATION	03/13/2023	4/3/2023	EMERGENCY GENERATOR	18.7 MMBTU/HR	GOOD COMBUSTION PRACTICES, LIMITED TO 100 HR/YR	0.003 LB/HP HR	BACT-PSD
TX-0933	NACERO PENWELL FACILITY	11/17/2021	3/8/2022	Emergency Generators	0	limited to 100 hours per year of non-emergency	0	BACT-PSD
						operation. EPA Tier 2 (40 CFR § 1039.101) exhaust emission standards		
TX-0904	MOTIVA POLYETHYLENE MANUFACTURING COMPLEX	09/09/2020	12/1/2021	EMERGENCY GENERATOR	0	100 HOURS OPERATIONS, Tier 4 exhaust emission	0	BACT-PSD
17-0504		05/05/2020	12/1/2021		0	standards specified in 40 CFR § 1039.101	0	BACI-15D
TX-0905	DIAMOND GREEN DIESEL PORT ARTHUR FACILITY	09/16/2020	9/10/2021	EMERGENCY GENERATOR	0	limited to 100 hours per year of non-emergency	0	BACT-PSD
						operation		
LA-0364	FG LA COMPLEX	01/06/2020	8/9/2021	Emergency Generator Diesel Engines	550 hp	Compliance with the limitations imposed by 40 CFR 63 Subpart IIII and operating the engine in accordance with	0	BACT-PSD
						the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.		
TX-0876	PORT ARTHUR ETHANE CRACKER UNIT	02/06/2020	11/12/2020	Emergency generator	0	Tier 4 exhaust emission standards specified in 40 CFR §	0	BACT-PSD
1X-0070		02/00/2020	11, 12, 2020	Energency generator	0	1039.101, limited to 100 hours per year of non- emergency operation	0	BACTIOD
TX-0876	PORT ARTHUR ETHANE CRACKER UNIT	02/06/2020	11/12/2020	Emergency firewater pumps	0	Tier 3 exhaust emission standards specified in 40 CFR §	0	BACT-PSD
						89.112, limited to 100 hours per year of non-emergency operation		
KS-0040	JOHNS MANVILLE AT MCPHERSON	12/03/2019	8/25/2020	Emergency Diesel Engines	0	One diesel fuel emergency engine and one fire pump	0.2 GR/KWH	BACT-PSD
						subject to NSPS Subpart IIII - Combustion Control and		
AK-0084	DONLIN GOLD PROJECT	06/30/2017	4/16/2020	Twelve (12) Large ULSD/Natural Gas-Fired Internal Combustion Engines	143.5 MMBtu/hr	Limited Operating Hours. Clean Fuel and Good Combustion Practices	0.15 G/KW-HR (ULSD)	BACT-PSD
TX-0728	PEONY CHEMICAL MANUFACTURING FACILITY	04/01/2015	1/31/2020		1500 hp	Minimized hours of operations Tier II engine	0.15 LB/H	OTHER CAS
OH-0379	PETMIN USA INCORPORATED	02/06/2019		Emergency Generators (P005 and P006)	3131 HP	Tier IV engine	0.15 LB/H	BACT-PSD
						Good combustion practices		
WV-0025		11/21/2014	5/1/2018	Emergency Generator	2015.7 HP		0	BACT-PSD
LA-0313	ST. CHARLES POWER STATION	08/31/2016	4/28/2017	SCPS Emergency Diesel Generator 1	2584 HP	Compliance with NESHAP 40 CFR 63 Subpart ZZZZ and	0.86 LB/H	BACT-PSD
						NSPS 40 CFR 60 Subpart IIII, and good combustion		
LA-0308	MORGAN CITY POWER PLANT	09/26/2013	4/28/2017	2000 KW Diesel Fired Emergency Generator Engine	20.4 MMBTU/hr	practices (use of ultra-low sulfur diesel fuel). Good combustion and maintenance practices, and	1.06 LB/H	BACT-PSD
LA-0500	Mondan er i rowent ban	03/20/2013	4/20/2017	2000 KW Diesen neu Enleigency Generator Engine	20.4 1010/11	compliance with NSPS 40 CFR 60 Subpart IIII	1.00 LB/11	DACINDD
IN-0185	MAG PELLET LLC	04/24/2014	5/13/2016	DIESEL FIRE PUMP	300 HP		0.15 G/HP-H	BACT-PSD
LA-0272	AMMONIA PRODUCTION FACILITY	03/27/2013	5/4/2016	EMERGENCY DIESEL GENERATOR (2205-B)	1200 HP	Compliance with 40 CFR 60 Subpart IIII; good	0	BACT-PSD
AK-0082						combustion practices.		
	POINT THOMSON PRODUCTION FACILITY	01/23/2015		Emergency Camp Generators	2695 hp		0.15 GRAMS/HP-H	BACT-PSD
	POINT THOMSON PRODUCTION FACILITY POINT THOMSON PRODUCTION FACILITY	01/23/2015 01/23/2015		Fine Water Pumps Bulk Tank Generator Engines	610 hp 891 hp		0.15 GRAMS/HP-H 0.15 GRAMS/HP-H	BACT-PSD BACT-PSD
AK-0082		51,25/2013	2, 13/2010		411 200		Sizo Granoffi II	5
AK-0082 AK-0082 PM <sub>2.5</sub> - To								
AK-0082 AK-0082 PM <sub>2.5</sub> - To *MI-0454	LBWL-ERICKSON STATION	12/20/2022	5/15/2023		4474.2 KW	Ultra-low sulfur diesel fuel	1 LB/H	BACT-PSD
AK-0082 AK-0082 PM <sub>2.5</sub> - To		12/20/2022 09/20/2022	5/15/2023 4/25/2023		4474.2 KW 5051 HP	Certified to meet Tier 2 standards and good combustion	1 LB/H 0.07 LB/H	BACT-PSD BACT-PSD
AK-0082 AK-0082 PM <sub>2.5</sub> - To *MI-0454 OH-0387	LBWL-ERICKSON STATION INTEL OHIO SITE	09/20/2022	4/25/2023	5,051 bhp (3,768 kWm) Diesel-Fired Emergency Generators: P001 through P		Certified to meet Tier 2 standards and good combustion practices	0.07 LB/H	BACT-PSD
AK-0082 AK-0082 PM <sub>2.5</sub> - To *MI-0454	LBWL-ERICKSON STATION			5,051 bhp (3,768 kWm) Diesel-Fired Emergency Generators: P001 through P	5051 HP	Certified to meet Tier 2 standards and good combustion		
AK-0082 AK-0082 PM <sub>2.5</sub> - To *MI-0454 OH-0387 MI-0452	LBWL-ERICKSON STATION INTEL OHIO SITE	09/20/2022	4/25/2023 4/25/2023	5,051 bhp (3,768 kWm) Diesel-Fired Emergency Generators: P001 through P	5051 HP	Certified to meet Tier 2 standards and good combustion practices Diesel particulate filter, Good Combustion Practices and	0.07 LB/H	BACT-PSD

RBLCID	Facility Name	Permit Issuance Date	Date Last Updated	Process Name	Throughput	Control Method Description	Emission Limit EMISSION_LIMIT	
			-			control method beschption		
AR-0177	NUCOR STEEL ARKANSAS	11/21/2022	4/25/2023	SN-230 Galvanizing Line No, 2 Emergency Generator	3634 Horsepower		0.2 G/KW-HR	BACT-PSD
'IN-0359	NUCOR STEEL	03/30/2023	4/11/2023	Emergency Generator (CC-GEN1)	3000 Horsepower	certified engine	0.15 G/HP-H	BACT-PSD
*LA-0391	MAGNOLIA POWER GENERATING STATION UNIT 1	06/03/2022	3/6/2023	Emergency Diesel Generator Engine	2937 hp	Compliance with 40 CFR 60 Subpart IIII (Tier 2 non-road engines) standards, good combustion practices, and the use of ultra-low sulfur diesel fuel.	0.15 G/HP-HR	BACT-PSD
A-0388	LACC LLC US - ETHYLENE PLANT	02/25/2022	12/12/2022	Firewater Pump Engine No. 1 and 2	575 hp	Compliance with 40 CFR 60 Subpart III	0.23 LB/HR	BACT-PSD
NI-0300	NEMADJI TRAIL ENERGY CENTER	09/01/2020		Emergency Diesel Generator (P07)	1490 HP	Limited to operate 500 hours/year, sulfur content of the	0.15 G/HP-H	BACT-PSD
						diesel fuel oil fired may not exceed 15 ppm, and operate and maintain according to the manufacturer's recommendations.		
WI-0294	CARDINAL FG COMPANY	08/26/2019		P10- Diesel emergency Generator	0		0.05 G/BHP-H	BACT-PSD
AK-0088	LIQUEFACTION PLANT	07/07/2022	8/16/2022	Diesel Fire Pump Engine	27.9 Gal/hr	Good Combustion Practices; Limited Operation; 40 CFR 60 Subpart IIII	0.19 G/HP-HR	BACT-PSD
MI-0448	GRAYLING PARTICLEBOARD	12/18/2020	8/16/2022	Emergency diesel generator engine (EUEMRGRICE1 in FGRICE)	500 h/yr	Certified Engines, Good Design, Operation, and Combustion Practices, Operational Restrictions/Limited Use	0.66 LB/H	BACT-PSD
MI-0448	GRAYLING PARTICLEBOARD	12/18/2020	8/16/2022	Emergency diesel generator engine (EUEMRGRICE2 in FGRICE)	500 h/yr	Certified Engines, Good Design, Operation, and Combustion Practices, Operational Restrictions/Limited Use	0.22 LB/H	BACT-PSD
MI-0448	GRAYLING PARTICLEBOARD	12/18/2020	8/16/2022	Diesel fire pump engine (EUFIREPUMP in FGRICE)	500 h/yr	Certified Engines, Good Design, Operation, and Combustion Practices, Operational Restrictions/Limited Use	0.18 LB/H	BACT-PSD
IN-0324	MIDWEST FERTILIZER COMPANY LLC	05/06/2022	8/16/2022	emergency generator EU 014a	3600 HP		0.15 G/HP-HR	BACT-PSD
IN-0324	MIDWEST FERTILIZER COMPANY LLC	05/06/2022	8/16/2022	fire water pump EU-015	500 HP		0.15 G/HP-HR	BACT-PSD
AK-0085	GAS TREATMENT PLANT	08/13/2020	8/16/2022	One (1) Black Start Generator Engine	186.6 gph	Good combustion practices, ULSD, and limit operation to 500 hours per year.	0.045 G/HP-HR	BACT-PSD
VA-0333	NORFOLK NAVAL SHIPYARD	12/09/2020	3/8/2022	One (1) emergency engine generator	2220 HP		1.1 LB	BACT-PSD
WI-0286	SIO INTERNATIONAL WISCONSIN, INCENERGY PLANT	04/24/2018	3/8/2022	P42 -Diesel Fired Emergency Generator	0	Good Combustion Practices and The Use of Ultra-low Sulfur Fuel	0.17 G/KWH	BACT-PSD
WI-0284	SIO INTERNATIONAL WISCONSIN, INCENERGY PLANT	04/24/2018	3/8/2022	Diesel-Fired Emergency Generators	0	The Use of Ultra-Low Sulfur Fuel and Good Combustion Practices	0.17 G/KWH	BACT-PSD
LA-0383	LAKE CHARLES LNG EXPORT TERMINAL	09/03/2020	3/4/2022	Emergency Engines (EQT0011 - EQT0016)	0	Comply with 40 CFR 60 Subpart IIII	0	BACT-PSD
OH-0383	PETMIN USA INCORPORATED	07/17/2020	3/4/2022	Diesel-fired emergency fire pumps (2) (P009 and P010)	3131 HP	Tier IV engine and Good combustion practices	0.15 G/B-HP-H	BACT-PSD
LA-0382	BIG LAKE FUELS METHANOL PLANT	04/25/2019	3/4/2022	Emergency Engines (EQT0014 - EQT0017)	0	Comply with standards of 40 CFR 60 Subpart III	0	BACT-PSD
MI-0447	LBWLERICKSON STATION	01/07/2021	9/10/2021	EUEMGDemergency engine	4474.2 KW	ultra-low sulfur diesel fuel	1 LB/H	BACT-PSD
SC-0193	MERCEDES BENZ VANS, LLC	04/15/2016	9/10/2021	Emergency Generators and Fire Pump	1500 hp	Meet the standards of 40 CFR 60, Subpart III	100 HR/YR	BACT-PSD
LA-0364	FG LA COMPLEX	01/06/2020	8/9/2021	Emergency Fire Water Pumps	550 hp	Compliance with the limitations imposed by 40 CFR 63 Subpart IIII and operating the engine in accordance with the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency	0	BACT-PSD
MI-0442	THOMAS TOWNSHIP ENERGY, LLC	08/21/2019	8/9/2021	FGEMENGINE	1100 KW	and minimize fuel usage. Good combustion practices and ultra low sulfur diesel.	7.55 LB/1000 GAL	BACT-PSD
MI-0441	LBWLERICKSON STATION	12/21/2018	8/9/2021	EUEMGD1A 1500 HP diesel fueled emergency engine	1500 HP	Ultra low-sulfur diesel fuel.	0.69 LB/H	BACT-PSD
MI-0441	LBWLERICKSON STATION	12/21/2018	8/9/2021	EUEMGD2A 6000 HP diesel fuel fired emergency engine	6000 HP	Ultra low sulfur diesel fuel.	2.7 LB/H	BACT-PSD
MA-0043	MIT CENTRAL UTILITY PLANT	06/21/2017	8/9/2021	Cold Start Engine	19.04 MMBTU/HR		0.4 LB/HR	BACT-PSD
LA-0350	BENTELER STEEL TUBE FACILITY	03/28/2018	8/6/2021	emergency generators (3 units) EQT0039, EQT0040, EQT0041	0	Comply with 40 CFR 60 Subpart IIII	0	BACT-PSD
LA-0346	GULF COAST METHANOL COMPLEX	01/04/2018	8/6/2021	emergency generators (4 units)	13410 hp (each)		0	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021	New Pumphouse (XB13) Emergency Generator #1 (EP 08-05)	2922 HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0.15 G/HP-HR	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021		Tunnel Furnace Emergency Generator (EP 08-06)	2937 HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0.15 G/HP-HR	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021		Caster B Emergency Generator (EP 08-07)	2937 HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0.15 G/HP-HR	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021		Air Separation Unit Emergency Generator (EP 08-08)	700 HP 2800 HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0.15 G/HP-HR 0.2 G/KWH	BACT-PSD BACT-PSD
		06/11/2019		Emergency generator EU-6006		Tier II diesel engine	,	
IN-0317	RIVERVIEW ENERGY CORPORATION	06/11/2019		Emergency fire pump EU-6008	750 HP	Engine that complies with Table 4 to Subpart IIII of Part 60	0.2 G/KWH	BACT-PSD
VA-0332	CHICKAHOMINY POWER LLC	06/24/2019	5/19/2021	Emergency Diesel Generator - 300 kW	500 H/YR	good combustion practices, high efficiency design, and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	0.15 G/HP-HR	BACT-PSD
AR-0161	SUN BIO MATERIAL COMPANY	09/23/2019	5/5/2021	Emergency Engines	0	Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	0.02 G/KW-HR	BACT-PSD
*LA-0315		05/23/2014	4/5/2021	Emergency Diesel Generator 1	5364 HP	Proper burner design and operation	1.76 LB/H	BACT-PSD
*LA-0315		05/23/2014	4/5/2021	Emergency Diesel Generator 2	5364 HP	Proper design and operation; use of ultra-low sulfur diesel	1.76 LB/H	BACT-PSD
	G2G PLANT	05/23/2014	4/5/2021	Fire Pump Diesel Engine 1	751 HP	Proper design and operation; use of ultra-low sulfur diesel	0.25 LB/H	BACT-PSD
*LA-0315	G2G PLANT NUCOR STEEL BRANDENBURG	05/23/2014	4/5/2021	Fire Pump Diesel Engine 2	751 HP	Proper design and operation; use of ultra-low sulfur diesel	0.25 LB/H	BACT-PSD
		07/23/2020		EP 10-02 - North Water System Emergency Generator	2922 HP	This EP is required to have a Good Combustion and	0.15 G/HP-HR	BACT-PSD

RBLCID	Facility Name	Permit Issuance Date	Date Last Updated	Process Name	Throughput	Control Method Description	Emission Limit	EMISSION_LIMIT_1	AV BASIS
(Y-0110	NUCOR STEEL BRANDENBURG	07/23/2020			2922 HP	This EP is required to have a Good Combustion and		G/HP-HR	BACT-PSD
					920 HP	Operating Practices (GCOP) Plan.	0.45		DACT DOD
Y-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021	EP 10-04 - Emergency Fire Water Pump	920 HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15	G/HP-HR	BACT-PSD
Y-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021	EP 10-07 - Air Separation Plant Emergency Generator	700 HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15	G/HP-HR	BACT-PSD
Y-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021	EP 10-01 - Caster Emergency Generator	2922 HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15	G/HP-HR	BACT-PSD
-0109	FRITZ WINTER NORTH AMERICA, LP	10/24/2016	1/25/2021	Emergency Generators #1, #2, & #3 (EU72, EU73, & EU74)	53.6 gal/hr	The permittee shall prepare and maintain for EU72,	0.149	G/HP-HR (EU72 &EU	J73 BACT-PSD
						EU73, and EU74, within 90 days of startup, a good combustion and operation practices plan (GCOP) that			
						defines, measures			
						and verifies the use of operational and design practices determined as BACT for minimizing CO, VOC, PM, PM10,			
						and PM2.5 emissions. Any revisions requested by the			
						Division shall be made and the plan shall be maintained			
						on site. The permittee shall operate according to the provisions of this plan at all times, including periods of			
						startup, shutdown, and malfunction. The plan shall be			
						incorporated into the plant standard operating			
						procedures (SOP) and shall be made available for the Division's inspection. The plan shall include, but not			
						be limited to:			
						i. A list of combustion optimization practices and a			
						means of verifying the practices have occurred.			
						<li>ii. A list of combustion and operation practices to be used to lower energy consumption and a means of</li>			
						verifying the practices have occurred.			
						iii. A list of the design choices determined to be BACT			
						and verification that designs were implemented in the final construction.			
VII-0445	INDECK NILES, LLC	11/26/2019	12/23/2020	EUEMENGINE (diesel fuel emergency engine)	22.68 MMBTU/H	Good combustion practices	1.58	3 LB/H	BACT-PSE
(-0888	ORANGE POLYETHYLENE PLANT	04/23/2020		EMERGENCY GENERATORS & amp; FIRE WATER PUMP ENGINES	0	well-designed and properly maintained engines and	0		BACT-PSE
						each limited to 100 hours per year of non-emergency use.			
R-0163	BIG RIVER STEEL LLC	06/09/2019	11/10/2020	Emergency Engines	0	Good Operating Practices, limited hours of operation,	0.2	g/kw-hr	BACT-PSD
1D-0042	WILDCAT POINT GENERATION FACILITY	04/08/2014	8/12/2020	EMERGENCY GENERATOR 1	2250 KW	Compliance with NSPS Subpart IIII EXCLUSIVE USE OF ULSD FUEL, GOOD COMBUSTION	0.15	G/HP-H	BACT-PSD
0 00 12		01/00/2021	0,12,2020			PRACTICES, LIMITED HOURS OF OPERATION, AND	0.15	, o,	5,101,155
10-0312	ST. JAMES METHANOL PLANT	06/30/2017	5/1/2020	DFP1-13 - Diesel Fire Pump Engine (EQT0013)	650 horsepower	DESIGNED TO ACHIEVE EMISSION LIMITS Compliance with NSPS IIII	0.15	5 LB/HR	BACT-PSD
	ST. JAMES METHANOL PLANT	06/30/2017	5/1/2020	DEG1-13 - Diesel Fired Emergency Generator Engine (EQT0012)	1474 horsepower	Compliance with NSPS Subpart IIII		3 LB/HR	BACT-PSD
K-0084	DONLIN GOLD PROJECT	06/30/2017	4/16/2020	Black Start and Emergency Internal Cumbustion Engines	1500 kWe	Clean Fuel and Good Combustion Practices		6 G/KW-HR	BACT-PSD
K-0084 AL-0318	DONLIN GOLD PROJECT	06/30/2017	4/16/2020		143.5 MMBtu/hr	Clean Fuel and Good Combustion Practices	0.29	G/KW-HR (ULSD)	BACT-PSD
	TALLADEGA SAWMILL PTTGCA PETROCHEMICAL COMPLEX	12/18/2017 12/21/2018		250 Hp Emergency CI, Diesel-fired RICE Emergency Diesel-fired Generator Engine (P007)	0 3353 HP	certified to the meet the emissions standards in Table 4	-	J L LB/H	N/A BACT-PSD
		,,	-,,			of 40 CFR Part 60, Subpart IIII, shall employ good			
						combustion practices per the manufacturer's			
0H-0378	PTTGCA PETROCHEMICAL COMPLEX	12/21/2018	6/19/2019	1,000 kW Emergency Generators (P008 - P010)	1341 HP	operating manual certified to the meet the emissions standards in Table 4	0.44	LB/H	BACT-PSD
						of 40 CFR Part 60, Subpart IIII, shall employ good			
						combustion practices per the manufacturer's			
0H-0377	HARRISON POWER	04/19/2018	6/19/2019	Emergency Diesel Generator (P003)	1860 HP	operating manual Good combustion practices (ULSD) and compliance with	0.62	2 LB/H	BACT-PSD
		04/10/2010	0/13/2013		1000 111	40 CFR Part 60, Subpart IIII	0.02	20/11	0/101/100
DH-0376	IRONUNITS LLC - TOLEDO HBI	02/09/2018	6/19/2019	Emergency diesel-fired generator (P007)	2682 HP	Comply with NSPS 40 CFR 60 Subpart IIII		LLB/H	BACT-PSD
OH-0375 OH-0375	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	11/07/2017 11/07/2017	6/19/2019 6/19/2019	Emergency Diesel Generator Engine (P001) Emergency Diesel Fire Pump Engine (P002)	2206 HP 700 HP	Good combustion design Good combustion design		8 LB/H 8 LB/H	BACT-PSD BACT-PSD
DH-0375 DH-0374	GUERNSEY POWER STATION LLC	10/23/2017	6/19/2019		2206 HP	Certified to the meet the emissions standards in 40 CFR		3 LB/H	BACT-PSD BACT-PSD
				· · ·		89.112 and 89.113 pursuant to 40 CFR 60.4205(b) and			
						60.4202(a)(2).			
						Good combustion practices per the manufacturer's operating manual.			
0H-0372	OREGON ENERGY CENTER	09/27/2017	6/19/2019	Emergency generator (P003)	1529 HP	Ultra low sulfur diesel fuel	0.5	5 LB/H	BACT-PSD
DH-0370	TRUMBULL ENERGY CENTER	09/07/2017	6/19/2019	Emergency generator (P003)	1529 HP	Ultra low sulfur diesel fuel		5 LB/H	BACT-PSD
OH-0368	PALLAS NITROGEN LLC	04/19/2017	6/19/2019	Emergency Generator (P009)	5000 HP	good combustion control and operating practices and engines designed to meet the stands of 40 CFR Part 60,	0.2	2 LB/H	BACT-PSD
)H-0367	SOUTH FIELD ENERGY LLC	09/23/2016	6/19/2019	Emergency generator (P003)	2947 HP	Subpart IIII State-of-the-art combustion design	0 97	7 LB/H	BACT-PSD
	CLEAN ENERGY FUTURE - LORDSTOWN, LLC	08/25/2010	6/19/2019	Emergency generator (P003)	2346 HP	State-of-the-art combustion design		/ LB/H	BACT-PSD BACT-PSD
DH-0366									
OH-0366 LA-0331 LA-0331	CALCASIEU PASS LNG PROJECT CALCASIEU PASS LNG PROJECT	09/21/2018 09/21/2018		Firewater Pumps Large Emergency Engines (>50kW)	634 kW 5364 HP	Good combustion and operating practices. Good combustion and operating practices.		3 G/HP-H 2 G/KW-H	BACT-PSD BACT-PSD

RBLCID	Facility Name	Permit Issuance Date	Date Last Updated	Process Name	Throughput	Control Method Description	Emission Limit EMISSION LIMIT	1 AVBASIS
VA-0328	C4GT, LLC	04/26/2018	6/19/2019		500 H/YR	Good combustion practices and the use of ultra low	0.15 G/HP H	BACT-PSD
	, .	.,,				sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.		
VA-0325	GREENSVILLE POWER STATION	06/17/2016	6/19/2019	DIESEL-FIRED EMERGENCY GENERATOR 3000 kW (1)	0	Ultra Low Sulfur Diesel/Fuel (15 ppm max)	0.4 G/KR	N/A
OH-0363	NTE OHIO, LLC	11/05/2014	4/1/2019	Emergency generator (P002)	1100 KW	Emergency operation only, < 500 hours/year each for maintenance checks and readiness testing designed to	0.77 LB/H	BACT-PSD
OH-0360	CARROLL COUNTY ENERGY	11/05/2013	4/1/2019	Emergency generator (P003)	1112 KW	meet NSPS Subpart IIII Purchased certified to the standards in NSPS Subpart IIII	0.49 LB/H	BACT-PSD
MI-0435	BELLE RIVER COMBINED CYCLE POWER PLANT	07/16/2018	2/19/2019	EUEMENGINE: Emergency engine	2 MW	State of the art combustion design.	1.18 LB/H	BACT-PSD
MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	06/29/2018	2/19/2019		1341 HP	Diesel particulate filter, good combustion practices and meeting NSPS Subpart IIII requirements.	0.52 LB/H	BACT-PSD
MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	06/29/2018		EUEMENGINE (South Plant): Emergency Engine	1341 HP	Diesel particulate filter, good combustion practices and meeting NSPS Subpart IIII requirements.	0.52 LB/H	BACT-PSD
PA-0311	MOXIE FREEDOM GENERATION PLANT	09/01/2015		Emergency Generator	0		0.04 G/HP-HR	BACT-PSD
PA-0311	MOXIE FREEDOM GENERATION PLANT	09/01/2015		Fire Pump Engine	0		2 HP-HR	BACT-PSD
PA-0309	LACKAWANNA ENERGY CTR/JESSUP	12/23/2015		2000 kW Emergency Generator	0		0.025 GM/HP-HR	BACT-PSD
MD-0044	COVE POINT LNG TERMINAL	06/09/2014	5/14/2018	EMERGENCY GENERATOR	1550 HP	EXCLUSIVE USE OF ULSD FUEL, GOOD COMBUSTION PRACTICES AND DESIGNED TO ACHIEVE EMISSION LIMITS	0.17 G/HP-H	BACT-PSD
LA-0323	MONSANTO LULING PLANT	01/09/2017	5/11/2018	Fire Water Diesel Pump No. 3 Engine	600 hp	Proper operation and limits on hours operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0	BACT-PSD
LA-0323	MONSANTO LULING PLANT	01/09/2017	5/11/2018	Fire Water Diesel Pump No. 4 Engine	600 hp	Proper operation and limits on hours of operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0	BACT-PSD
OK-0156	NORTHSTAR AGRI IND ENID	07/31/2013	5/11/2018	Fire Pump Engine	550 hp		0.2 GM/HP-HR	BACT-PSD
NJ-0084	PSEG FOSSIL LLC SEWAREN GENERATING STATION	03/10/2016	4/17/2018	Diesel Fired Emergency Generator	44 H/YR	use of ULSD a clean burning fuel, and limited hours of operation	0.26 LB/H	BACT-PSD
MI-0423	INDECK NILES, LLC	01/04/2017	3/8/2018	EUEMENGINE (Diesel fuel emergency engine)	22.68 MMBTU/H	Good combustion practices.	1.58 LB/H	BACT-PSD
MI-0425	GRAYLING PARTICLEBOARD	05/09/2017	11/15/2017	EUEMRGRICE1 in FGRICE (Emergency diesel generator engine)	500 H/YR	Certified engines, good design, operation and combustion practices. Operational restrictions/limited use.	0.66 LB/H	BACT-PSD
MI-0425	GRAYLING PARTICLEBOARD	05/09/2017	11/15/2017	EUEMRGRICE2 in FGRICE (Emergency Diesel Generator Engine)	500 H/YR	Certified engines. Good design, operation and combustion practices. Operational restrictions/limited use.	0.22 LB/H	BACT-PSD
MI-0425	GRAYLING PARTICLEBOARD	05/09/2017	11/15/2017	EUFIREPUMP in FGRICE (Diesel fire pump engine)	500 H/YR	Certified engines. Good design, operation and combustion practices. Operational restrictions/limited use.	0.18 LB/H	BACT-PSD
IN-0263	MIDWEST FERTILIZER COMPANY LLC	03/23/2017	8/22/2017	EMERGENCY GENERATORS (EU014A AND EU-014B)	3600 HP EACH	GOOD COMBUSTION PRACTICES	0.15 G/HP-H EACH	BACT-PSD
MI-0421	GRAYLING PARTICLEBOARD	08/26/2016	7/20/2017	Emergency Diesel Generator Engine (EUEMRGRICE in FGRICE)	500 H/YR	Certified engines, good design, operation and combustion practices. Operational restrictions/limited use.	1.41 LB/H	BACT-PSD
MI-0421	GRAYLING PARTICLEBOARD	08/26/2016	7/20/2017	Dieself fire pump engine (EUFIREPUMP in FGRICE)	500 H/YR	Certified engines. Good design, operation and combustion practices. Operational restrictions/limited use.	0.18 LB/H	BACT-PSD
LA-0317	METHANEX - GEISMAR METHANOL PLANT	12/22/2016	4/28/2017	Emergency Generator Engines (4 units)	0	use. complying with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	0	BACT-PSD
LA-0317	METHANEX - GEISMAR METHANOL PLANT	12/22/2016	4/28/2017	Firewater pump Engines (4 units)	896 hp (each)	complying with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZ	0	BACT-PSD
LA-0316	CAMERON LNG FACILITY	02/17/2017	4/28/2017	emergency generator engines (6 units)	3353 hp	Complying with 40 CFR 60 Subpart IIII	0	BACT-PSD
LA-0309	BENTELER STEEL TUBE FACILITY	06/04/2015	4/28/2017		2922 hp (each)	Complying with 40 CFR 60 Subpart IIII	0.2 G/KW-HR	BACT-PSD
LA-0307	MAGNOLIA LNG FACILITY	03/21/2016	4/28/2017	-	0	good combustion practices, Use ultra low sulfur diesel, and comply with 40 CFR 60 Subpart IIII	0	BACT-PSD
LA-0305	LAKE CHARLES METHANOL FACILITY	06/30/2016	4/28/2017		4023 hp	Complying with 40 CFR 60 Subpart IIII	0	BACT-PSD
LA-0296	LAKE CHARLES CHEMICAL COMPLEX LDPE UNIT	05/23/2014	4/28/2017	Emergency Diesel Generators (EQTs 622, 671, 773, 850, 994, 995, 996, 1033,	2682 HP	Compliance with 40 CFR 60 Subpart IIII; operating the engine in accordance with the engine manufactureraic <sup>4</sup> C <sup>4</sup> instructions and/or writhen procedures (consistent with safe operation) designed to maximize combustion efficiency and minimize fuel usage.	0.88 LB/HR	BACT-PSD
AR-0140	BIG RIVER STEEL LLC	09/18/2013	12/13/2016	EMERGENCY GENERATORS	1500 KW	GOOD OPERATING PRACTICES, LIMITED HOURS OF OPERATION, COMPLIANCE WITH NSPS SUBPART III	0.04 G/KW-H	BACT-PSD
LA-0292	HOLBROOK COMPRESSOR STATION	01/22/2016	9/19/2016	Emergency Generators No. 1 & amp; No. 2	1341 HP	Use of a certified engine, low sulfur diesel, and limiting non-emergency use to no more than 100 hours per year	0.44 LB/HR	BACT-PSD
LA-0288	LAKE CHARLES CHEMICAL COMPLEX	05/23/2014	9/14/2016	Emergency Diesel Generators (EQT 629, 639, 838, 966, & 1264)	2682 HP	Comply with 40 CFR 60 Subpart IIII; operate the engine in accordance with the engine manufacturerace in instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.	0.88 LB/HR	BACT-PSD
OK-0154	MOORELAND GENERATING STA	07/02/2013	7/29/2016	DIESEL-FIRED EMERGENCY GENERATOR ENGINE	1341 HP	COMBUSTION CONTROL.	0.44 LB/HR	BACT-PSD
MI-0406	RENAISSANCE POWER LLC	11/01/2013		FG-EMGEN7-8; Two (2) 1,000kW diesel-fueled emergency reciprocating inter	1000 kW	Good combustion practices	0.15 G/B-HP-H	BACT-PSD

		Permit	Date Last						
RBLCID	Facility Name	Issuance Date	Updated	Process Name	Throughput	Control Method Description	Emission Limit	EMISSION_LIMIT_1_	_A\ BASIS
FL-0347	ANADARKO PETROLEUM CORPORATION - EGOM	09/16/2014	7/6/2016	Main Propulsion Generator Diesel Engines	9910 hp	Use of good combustion practices based on the most recent manufacturer's specifications issued for engines and with turbocharger, aftercooler, and high injection pressure	0.24	G/KW-H	BACT-PSD
IL-0114	CRONUS CHEMICALS, LLC	09/05/2014	5/5/2016	Emergency Generator	3755 HP	Tier IV standards for non-road engines at 40 CFR 1039.102, Table 7.	0.1	G/KW-H	BACT-PSD
PR-0009	ENERGY ANSWERS ARECIBO PUERTO RICO RENEWABLE ENERGY	04/10/2014	5/5/2016	Emergency Diesel Generator	0		0.15	G/B-HP-H	BACT-PSD
MA-0039	SALEM HARBOR STATION REDEVELOPMENT	01/30/2014	5/5/2016	Emergency Engine/Generator	7.4 MMBTU/H		0.15	GM/BHP-H	BACT-PSD
IN-0180	MIDWEST FERTILIZER CORPORATION	06/04/2014	5/5/2016	DIESEL FIRED EMERGENCY GENERATOR	3600 BHP	GOOD COMBUSTION PRACTICES	0.15	G/B-HP-H	BACT-PSD
IN-0179	OHIO VALLEY RESOURCES, LLC	09/25/2013	5/4/2016	DIESEL-FIRED EMERGENCY GENERATOR	4690 B-HP	GOOD COMBUSTION PRACTICES	0.15	LB/B-HP-H	BACT-PSD
IN-0173	MIDWEST FERTILIZER CORPORATION	06/04/2014	5/4/2016	DIESEL FIRED EMERGENCY GENERATOR	3600 BHP	GOOD COMBUSTION PRACTICES	0.15	G/BHP-H	BACT-PSD
IA-0106	CF INDUSTRIES NITROGEN, LLC - PORT NEAL NITROGEN COMPLE	07/12/2013	5/4/2016	Emergency Generators	180 GAL/H	good combustion practices	0.2	G/KW-H	BACT-PSD
AK-0081	POINT THOMSON PRODUCTION FACILITY	06/12/2013	1/8/2014	Combustion	610 hp	Good operation and combustion practices	0.15	G/KW-H	OTHER CASE

BELCDFacility NameIssuance DateUpdatedProcess NameThroughputControl Method DescriptionMM-0454MM-054LBMU-ERCISCON STATION $12/20/202$ 5/15/2023EUEM6D $474.2$ LWfor combustion practices, and energy0H-0387INTEL OHIO STE09/20/2022 $4/25/2023$ 5.051 bhg 2.768 kWm   Diesel-Fired Emergency Generator; P001 through P5051 HPGood combustion practices, and and particular and energyMI-0439MCK SOUTH, LLC09/20/2022 $4/25/2023$ EUEM6NDR (Enorth Phath; Emergency regine1341 HPGood combustion practicesMI-0439MCK SOUTH, LLC09/20/2024 $4/25/2023$ EUEM6NDR (Roth Phath; Emergency regine1341 HPGood combustion practicesMI-0379NUCOR STEEL09/20/2023 $4/25/2023$ EUEM6NDR (Roth Phath; Emergency regine1341 HPGood combustion practices*1X-0399ORANGE COUNTY ADVANCED POWER STATION03/13/2023 $4/3/2023$ EMERGENCY GENERATOR18.7 MMBTU/HRGOOD COMBUSTION PARCITES*1X-0399ORANGE COUNTY ADVANCED POWER STATION03/13/2022 $3/4/2023$ Emergency Diesel Generator Engine2937 hpCompliance with 40 CFR 605 shp*1X-0399MAGNOUA POWER GENERATING STATION UNIT 105/03/2022 $3/16/2022$ Emergency Fireburg (P36)310 HP*1X-0399MAGNOUA POWER GENERATING STATION UNIT 105/03/2022 $3/16/2022$ Emergency Fireburg (P36)310 HP*1X-0399MAGNOUA POWER GENERATING STATION UNIT 105/03/2022 $3/16/2022$ Emergency Creaters1250 KWCompliance with 40	Emission Limit EMISSION_L	IMIT_1_A\ BASIS
CH-B00 STE         OP/20/202         A/55/202         Soft bip (3,768 Wm) block/field field mergency Generators: PO01 through P         Soft HP         Good combustion practices and another services another services and another services and another service		BACT-PSD
Wi-0452     WEC SOUTH, LLC     06/23/2022     4/25/2022     EUMMNNE North Plant): Emergency engine     1341 HP     Good combustion practices       Mi-0452     MEC SOUTH, LLC     06/23/2022     4/25/2022     EUMMNNE North Plant): Emergency engine     1341 HP     Good combustion practices       Mi-0453     MEC SOUTH, LLC     06/23/2022     4/25/2023     MEC SOUTH, LLC     Good combustion practices       Mi-0453     MEC SOUTH, LLC     06/23/2022     4/25/2023     MEC SOUTH, LLC     Good combustion practices       Mi-0453     MEC SOUTH, AUX-NASS     03/30/2023     4/3/2023     MERGENCY GENERATOR     13.7     MBTU/HR     GOOD COMBUSTION PRACTICES       *1X-0339     NAGROUA POWER GENERATING STATION UNIT 1     06/03/2022     3/6/2023     mergency Diesel Generator Engine     2337 hp     Compliance with 40 CFR 60 Subj.       *1X-0391     MAGNOUA POWER GENERATING STATION UNIT 1     06/03/2022     12/12/2022     Firewater Pump Engine No 1 and 2     575 hp     Compliance with 40 CFR 60 Subj.       10:133     LICCUL US - ETHYLENE PLANT     02/12/2022     12/12/2022     Firewater Pump Engine Rol 1 and 2     575 hp     Compliance with 40 CFR 60 Subj.       10:133     LICCUL US - ETHYLENE PLANT     02/12/2022     12/12/2022     Firewater Pump Engine     1350 HP     Compliance with 40 CFR 60 Subj.       10:134     LICCUL US - ETHYLENE PLANT		5,101,155
MI-0453       MEC NORTH, LC       06/32.022       4/15/2023       4/15/2023       MCMEMONIP Plant; Emergency regime       141 HP       God combustion practices         *N-035       NUCOR STEL ARMANS       03/30/2023       4/11/2023       Emergency Generator (CC-GEN1)       3000 Horsepower       God engineering design and m recommending esign recommending design and m recommending design	roper maintenance 162.7 LB/MMBTU	BACT-PSD
Mi-045.         MEC NORTH, LC         06/3/2022         4/15/2023         2/15/2023	383 T/YR	BACT-PSD
**N-039     NUCCR STEEL     03/30/2023     4/11/2023     Emergency Generator (CC-GEN1)     300 Horsepower     Good engineering design and m       **Tx-039     ORANGE COUNTY ADVANCED POWER STATION     03/13/2023     4/3/2023     EMERGENCY GENERATOR     18.7 MMBTU/HR     GOOD COMUSITION PRACTICES       **LA-039     MAGNOLIA POWER GENERATING STATION UNIT     06/03/2022     3/6/2023     Emergency Disel Generator Engine     2937 hp     Compliance with 40 CFR 60 Sub combustion practices, and the u design and m       LA-0388     LACC LLC U.S - ETHYLENE PLANT     02/25/2022     12/12/2022     Firewater Pump Engine No. 1 and 2     575 hp     Compliance with 40 CFR 60 Sub combustion practices, and the u design and m       LA-0388     LACC LLC U.S - ETHYLENE PLANT     02/15/2022     12/12/2022     Firewater Pump Engine No. 1 and 2     575 hp     Compliance with 40 CFR 60 Sub combustion practices, and the u design and m       L0-0318     LINCOLM LAND ENERGY CENTER     07/13/2022     12/16/2022     Emergency Engines     1250 W/     Certified to at least meet EPA4G       W-0297     GREEN BAY PACKAGING- MILL DIVISION     12/10/2013     9/16/2022     Ensergency Fire Pump (P36)     510 HP       M-0446     GRAVLING PARTICLEBOARD     12/18/2020     8/16/2022     Ensergency Gines generator engine (EUEMRGRICE1 in FGRICE)     500 h/yr     Good combustion and besign P       M-0446     GRAVLING PARTICLEBOARD	383 T/YR	BACT-PSD
**N-039     NUCCR STEEL     03/30/2023     4/11/2023     Emergency Generator (CC-GEN1)     300 Horsepower     Good engineering design and m       **Tx-039     ORANGE COUNTY ADVANCED POWER STATION     03/13/2023     4/3/2023     EMERGENCY GENERATOR     18.7 MMBTU/HR     GOOD COMUSITION PRACTICES       **LA-039     MAGNOLIA POWER GENERATING STATION UNIT     06/03/2022     3/6/2023     Emergency Disel Generator Engine     2937 hp     Compliance with 40 CFR 60 Sub combustion practices, and the u design and m       LA-0388     LACC LLC U.S - ETHYLENE PLANT     02/25/2022     12/12/2022     Firewater Pump Engine No. 1 and 2     575 hp     Compliance with 40 CFR 60 Sub combustion practices, and the u design and m       LA-0388     LACC LLC U.S - ETHYLENE PLANT     02/15/2022     12/12/2022     Firewater Pump Engine No. 1 and 2     575 hp     Compliance with 40 CFR 60 Sub combustion practices, and the u design and m       L0-0318     LINCOLM LAND ENERGY CENTER     07/13/2022     12/16/2022     Emergency Engines     1250 W/     Certified to at least meet EPA4G       W-0297     GREEN BAY PACKAGING- MILL DIVISION     12/10/2013     9/16/2022     Ensergency Fire Pump (P36)     510 HP       M-0446     GRAVLING PARTICLEBOARD     12/18/2020     8/16/2022     Ensergency Gines generator engine (EUEMRGRICE1 in FGRICE)     500 h/yr     Good combustion and besign P       M-0446     GRAVLING PARTICLEBOARD	163 LB/MMBTU	BACT-PSD
*TX-0939         ORANGE COUNTY ADVANCED POWER STATION         03/13/2023         4/3/2023         EMERGENCY GENERATOR         18.7 MMBTU/HR         GOOD COMBUSTION PRACTICES           *LA-0391         MAGNOLIA POWER GENERATING STATION UNIT 1         06/03/2022         3/6/2022         Emergency Diesel Generator Engine         2937 hp         Compliance with 40 CFR 60 Sub industion practices, and the diesel fuel.           LA-0386         LCC LLC US - ETHYLENE PLANT         07/25/2022         12/12/2022         Firewater Pump Engine No. 1 and 2         575 hp         Compliance with 40 CFR 60 Sub industion practices, and the diesel fuel.           LI-0338         LICC LLC US - ETHYLENE PLANT         07/25/2022         12/12/2022         Emergency Engines         1250 kW         Certified to at lease fuel recommendations.           WI-0309         NEMADIL TRAIL ENERGY CENTER         07/15/2022         12/12/2022         Emergency Engines         1250 kW         Certified to at lease fuel recommendations.           WI-0309         NEMADIL TRAIL ENERGY CENTER         07/15/2022         Diesel Fired Emergency Fire Pump (P36)         510 HP         Condition practices; Lin mergency diesel generator engine (EUMRGRICE1 in FGRICE)         500 hV/r         Good Combustion and Design P           MI-0404         GRAZING PARTILEBARDA         12/18/2020         NI/15/202         Biesel Fire Pump Engine         EUMRGRICE1 in FGRICE)         500 hV/r         Good		BACT-PSD
<ul> <li>*LA-391</li> <li>MAGNOLIA POWER GENERATING STATION UNIT 1</li> <li>06/03/202</li> <li>3/6/2023</li> <li>Brergency Diesel Generator Engine</li> <li>2937 hp</li> <li>Compliance with 40 CFR 60 Subjuotistic practices, and the underest function of the second secon</li></ul>		
LA-0388 LACC LLC US - ETHYLENE PLANT02/25/2022 02/25/202212/12/2022 12/2/2022Firewater Pump Engine No. 1 and 2 Emergency Engines575 hp 1250 kWCompliance with 40 CFR 60 sub diesel fuelLI-0333LINCOIN LAND ENERGY CENTER07/25/202212/12/2022 12/6/2022Emergency Engines1250 kWCertified to at least meet EPAGE reciprocating internal combustic or generator (PO7)1390 HPCertified to at least meet EPAGE reciprocating internal combustic or generator according to the man recommendations.WI-0297GREEN BAY PACKAGING- MILL DIVISION12/10/20199/16/2022Diesel-Fired Emergency Fire Pump (P36)510 HPWI-0297GREEN BAY PACKAGING- MILL DIVISION12/18/2020B/16/2022Diesel-Fired Emergency Fire Pump (P36)500 hyrrWI-0297GREEN BAY PACKAGING- MILL DIVISION12/18/20208/16/2022Diesel-Fired Emergency Fire Pump (P36)510 HPWI-0297GREEN BAY PACKAGING- MILL DIVISION12/18/20208/16/2022Diesel Fire Pump Engine27.9 Ga/hrMI-0448GRAYLING PARTICLEBOARD12/18/20208/16/2022Emergency Ginesel generator engine (EUEMRGRICE1 in FGRICE)500 h/yrGood Combustion and Design PMI-0448GRAYLING PARTICLEBOARD12/18/20208/16/2022Emergency Ginesel generator engine (EUEMRGRICE1 in FGRICE)500 h/yrGood Combustion and Design PMI-0448GRAYLING PARTICLEBOARD12/18/20208/16/2022Bisel Fire Pump Engine (EUERGRICE1 in FGRICE)500 h/yrGood Combustion and Design PMI-0448GRAYLING PARTICLEBOARD12/18/2020 <t< td=""><td>LIMITED TO 100 HR/YR 0</td><td>BACT-PSD</td></t<>	LIMITED TO 100 HR/YR 0	BACT-PSD
IL-0133       UNCOLN LAND ENERGY CENTER       07/29/2022       12/6/2022       Emergency Engines       1250 kW         WI-0300       NEMADJI TRAIL ENERGY CENTER       09/01/2020       9/16/2022       Emergency Engines       12/00/201       1490 HP       Certified to at least meet EPA&         WI-0300       REEN BAY PACKAGING- MILL DIVISION       12/10/2019       9/16/2022       Diesel-Fired Emergency Fire Pump (P36)       510 HP       recommendations.         WI-0297       GREEN BAY PACKAGING- MILL DIVISION       12/10/2019       9/16/2022       Diesel-Fired Emergency Fire Pump (P36)       510 HP       Good Combustion Practices; In         MI-0486       GRAVLING PARTICLEBOARD       12/18/2020       8/16/2022       Emergency diesel generator engine (EUEMRGRICE1 in FGRICE)       500 h/yr       Good Combustion Practices; In         MI-0448       GRAVLING PARTICLEBOARD       12/18/2020       8/16/2022       Emergency diesel generator engine (EUEMRGRICE2 in FGRICE)       500 h/yr       Good Combustion and Design P         MI-0448       GRAVLING PARTICLEBOARD       12/18/2020       8/16/2022       Emergency Giesel Generator Engine (EUEMRGRICE2 in FGRICE)       500 h/yr       Good Combustion and Design P         MI-0448       GRAVLING PARTICLEBOARD       12/18/2020       8/16/2022       emergency Giesel Generator Engine       100 h/yr       Good Combustion and Design P		BACT-PSD
WH-0300       NEMADJI TRAIL ENERGY CENTER       09/01/2020       9/16/2022       Emergency Diesel Generator (P07)       1490 HP       Certified to at least meet EPAAC reciprocuting internal combustic certified to s00 hours/year, and o generator according to the man recommendations.         WI-0307       GREEN BAY PACKAGING-MILL DIVISION       12/10/2019       9/16/2022       Diesel-Fire Emergency Fire Pump (P36)       510 HP         MI-0448       GRAYLING PARTICLEBOARD       12/18/2020       8/16/2022       Diesel-Fire Emergency Fire Pump (P36)       500 h/yr       Good Combustion Practices; Lin         MI-0448       GRAYLING PARTICLEBOARD       12/18/2020       8/16/2022       Emergency diesel generator engine (EUERMGRICE1 in FGRICE)       500 h/yr       Good Combustion and Design P         MI-0448       GRAYLING PARTICLEBOARD       12/18/2020       8/16/2022       Emergency diesel generator engine (EUERMGRICE2 in FGRICE)       500 h/yr       Good Combustion and Design P         NI-0448       GRAYLING PARTICLEBOARD       12/18/2020       8/16/2022       Emergency Giesel Grenerator Engine (EUERMGRICE) in FGRICE)       500 h/yr       Good Combustion and Design P         NI-0448       GRAYLING PARTICLEBOARD       12/18/2020       8/16/2022       Emergency Giesel Grenerator Engine (EUERMGRICE) in FGRICE)       500 h/yr       Good Combustion and Design P         NI-0446       GRAYLING PARTICLEBOARD       12/18/	art III 33 T/YR	BACT-PSD
WI-0297       GREEN BAY PACKAGING- MILL DIVISION       12/10/2019       9/16/2022       Diesel-Fired Emergency Fire Pump (P36)       510       HP         WI-0297       GREEN BAY PACKAGING- MILL DIVISION       12/10/2019       9/16/2022       Diesel-Fired Emergency Fire Pump (P36)       510       HP         AK-0088       LIQUEFACTION PLANT       07/07/2022       8/16/2022       Diesel-Fired Emergency Giesel generator engine (EUEMRGRICE1 in FGRICE)       500 h/yr       Good Combustion Practices; Lin         MI-0448       GRAVLING PARTICLEBOARD       12/18/2020       8/16/2022       Emergency diesel generator engine (EUEMRGRICE2 in FGRICE)       500 h/yr       Good Combustion and Design P         MI-0448       GRAVLING PARTICLEBOARD       12/18/2020       8/16/2022       Emergency diesel generator engine (EUEMRGRICE2 in FGRICE)       500 h/yr       Good Combustion and Design P         MI-0448       GRAVLING PARTICLEBOARD       12/18/2020       8/16/2022       Emergency diesel generator engine (EUERRGRICE in FGRICE)       500 h/yr       Good Combustion and Design P         IN-0324       MIDWEST FERTILIZER COMPANY LLC       05/06/2022       8/16/2022       Inergency generator EU 014a       3600 HP          IN-0324       MIDWEST FERTILIZER COMPANY LLC       05/06/2022       8/16/2022       One (1) Black Start Generator Engine       186.6 gph       Good combustion practices and h	508 TONS/YEAR	BACT-PSD
AK-0088       LIQUEFACTION PLANT       07/07/2022       8/16/2022       Diesel Fire Pump Engine       27.9 Gal/hr       Good Combustion Practices; Lin         MI-0448       GRAYLING PARTICLEBOARD       12/18/2020       8/16/2022       Emergency diesel generator engine (EUEMRGRICE1 in FGRICE)       500 h/yr       Good Combustion and Design P         MI-0448       GRAYLING PARTICLEBOARD       12/18/2020       8/16/2022       Emergency diesel generator engine (EUEMRGRICE2 in FGRICE)       500 h/yr       Good Combustion and Design P         MI-0448       GRAYLING PARTICLEBOARD       12/18/2020       8/16/2022       Diesel fire pump engine (EUFIREPUMP in FGRICE)       500 h/yr       Good Combustion and Design P         MI-0448       GRAYLING PARTICLEBOARD       12/18/2020       8/16/2022       Diesel fire pump engine (EUFIREPUMP in FGRICE)       500 h/yr       Good Combustion and Design P         MI-0448       GRAYLING PARTICLEBOARD       12/18/2020       8/16/2022       emergency generator Engine       500 h/yr       Good Combustion and Design P         MI-0324       MIDWEST FERTILIZER COMPANY LLC       05/06/2022       8/16/2022       emergency generator Engine       186.6 gph       Good combustion practices and hours per year of operation. EPA Tier 2 (40 CFR A emission standards         MI-0448       GAS TREATMENT PLANT       11/17/2021       3/8/2022       One (1) emergency engine generator r	s criteria for Tier 2 0 engines and the 40 ations, operation verate and maintain	BACT-PSD
AK-0088       LIQUEFACTION PLANT       07/07/2022       8/16/2022       Diesel Fire Pump Engine       27.9 Gal/hr       Good Combustion Practices; Lin         MI-0448       GRAYLING PARTICLEBOARD       12/18/2020       8/16/2022       Emergency diesel generator engine (EUEMRGRICE1 in FGRICE)       500 h/yr       Good Combustion and Design P         MI-0448       GRAYLING PARTICLEBOARD       12/18/2020       8/16/2022       Emergency diesel generator engine (EUEMRGRICE2 in FGRICE)       500 h/yr       Good Combustion and Design P         MI-0448       GRAYLING PARTICLEBOARD       12/18/2020       8/16/2022       Diesel fire pump engine (EUFIRGPUMP in FGRICE)       500 h/yr       Good Combustion and Design P         MI-0448       GRAYLING PARTICLEBOARD       12/18/2020       8/16/2022       Diesel fire pump engine (EUFIRGPUMP in FGRICE)       500 h/yr       Good Combustion and Design P         NIN-324       MIDWEST FERTILIZER COMPANY LLC       05/06/2022       8/16/2022       emergency generator Engine       186.6 gph       Good combustion practices and hours per year         NN-324       MIDWEST FERTILIZER COMPANY LLC       08/13/2020       8/16/2022       One (1) Black Start Generator Engine       186.6 gph       Good combustion practices and hours per year         TX-0933       NACERO PENWELL FACILITY       11/17/2021       3/8/2022       One (1) emergency engine generator       2220 HP	200 H/Y	BACT-PSD
MI-048       GRAYLING PARTICLEBOARD       12/18/202       8/16/2022       Emergency diesel generator engine (EUERMGRICE1 in FGRICE)       500 h/yr       Good Combustion and Design P         MI-0448       GRAYLING PARTICLEBOARD       12/18/202       8/16/2022       Emergency diesel generator engine (EUERMGRICE2 in FGRICE)       500 h/yr       Good Combustion and Design P         MI-0448       GRAYLING PARTICLEBOARD       12/18/202       8/16/2022       Emergency diesel generator engine (EUERMGRICE2 in FGRICE)       500 h/yr       Good Combustion and Design P         NI-0434       MIDWEST FERTILIZER COMPANY LLC       05/06/2022       8/16/2022       emergency generator EU 014a       3600 HP         NI-0324       MIDWEST FERTILIZER COMPANY LLC       05/06/2022       8/16/2022       fire umer gency Generator EU 014a       3600 HP         NAC-005       GAS TREATIMENT PLANT       08/13/2020       8/16/2022       fire umer gency Generator Eu 014a       3600 HP       Good combustion paratices and hours per year         TX-093       NACERO PENWELL FACILITY       08/13/2020       8/16/2022       fire gunce regine generator Eugence       0       Good combustion paratices and hours per year         TX-0933       NACERO PENWELL FACILITY       3/8/2022       mergency Generators       0       Good combustion paratices and hours per year         TX-0933       NORFOLK NAVAL SHIPARD		BACT-PSD
MI-0448     GRAYLING PARTICLEBOARD     12/18/202     %1/6/202     Emergency diesel generator engine (EUE/MRGRICE2 in FGRICE)     500 h/yr     Good Combustion and Design P       MI-0448     GRAYLING PARTICLEBOARD     12/18/202     8/16/2022     Diesel fire pump engine (EUF/IRGPUMP in FGRICE)     500 h/yr     Good Combustion and Design P       MI-0448     GRAYLING PARTICLEBOARD     12/18/202     8/16/2022     Diesel fire pump engine (EUF/IRGPUMP in FGRICE)     500 h/yr     Good Combustion and Design P       MI-0428     MIDWEST FERTILIZER COMPANY LLC     05/06/2022     8/16/2022     fire water pump EU-015     500 H/P       IN-0324     MIDWEST FERTILIZER COMPANY LLC     05/06/2022     8/16/2022     One (1) Black Start Generator Engine     500 h/pr     Good combustion practices and hours per year       AK-0085     GAS TREATMENT PLANT     08/13/202     3/8/2022     One (1) Black Start Generator Engine     0     Imours per year       TX-0373     NACERO PENWELL FACILITY     3/8/2022     One (1) emergency engine generator     2220 HP     Imours per year       TX-0405     UNIT 5     03/11/2021     3/8/2022     Diesel GENERATOR     0     LIMITED 500 HR/YR OPERATION       VA-0338     NORFOLK NAVAL SHIPYARD     03/11/2021     3/8/2022     Diesel GENERATOR     0     LIMITED 500 HR/YR OPERATION       VA-0338     SIO INTERNATIONAL WISCONSIN, INC		BACT-PSD
MI-0448       GRAYLING PARTICLEBOARD       12/18/202       8/16/2022       Diesel fire pump engine (EUTIREPUMP in FGRICE)       500 h/yr       Good Combustion and Design P         IN-0324       MIDWEST FERTILIZER COMPANY LLC       05/06/2022       8/16/2022       emergency generator EU 014a       3600 HP         IN-0324       MIDWEST FERTILIZER COMPANY LLC       05/06/2022       8/16/2022       emergency generator EU 014a       3600 HP         AK-0085       GAS TREATMENT PLANT       08/13/2020       8/16/2022       One (1) Black Start Generator Engine       186.6 gph       Good combustion practices and hours per year of operation. EPA Tier 2 (40 CFR Å engine)         TX-0933       NACERO PENWELL FACILITY       11/17/2021       3/8/2022       mergency Generators       0       Imited to 100 hours per year of operation. EPA Tier 2 (40 CFR Å engine)         VA-0333       NORFOLK NAVAL SHIPYARD       12/09/2020       3/8/2022       One (1) emergency engine generator       2220 HP       Imited to 100 hours per year of operation. EPA Tier 2 (40 CFR Å engine)         VA-0333       NORFOLK NAVAL SHIPYARD       12/09/202       3/8/2022       Die (1) emergency engine generator       2220 HP       Imited to 100 hours per year of operation. EPA Tier 2 (40 CFR Å engine)       0       LIMITE 500 hR/YR OPERATION       MIN SO NAVAL SHIPYARD       0       LIMITE 500 hR/YR OPERATION       0       LIMITE 500 hR/YR OPERATION		BACT-PSD
IN-032         MIDWEST FERTILIZER COMPANY LLC         05/06/202         8/16/202         emergency generator EU 014a         3600 HP           IN-0324         MIDWEST FERTILIZER COMPANY LLC         05/06/202         8/16/2022         fire water pump EU-015         500 HP           IN-0324         GAS TREATILIZER COMPANY LLC         05/06/202         8/16/2022         fire water pump EU-015         500 HP           KA-0085         GAS TREATILIZER COMPANY LLC         05/06/202         8/16/2022         fire water pump EU-015         500 HP           TX-033         NACERO PENWELL FACILITY         8/16/2022         mergency Generators         0         Good combustion practices and hours per year of operation. EPA Tier 2 (40 CFR Å coperation. EPA Tier 2 (40 CFR Å coperatien. EPA Tier 2 (40 CFR Å		BACT-PSD
IN-0324     MIDWEST FERTILIZER COMPANY LLC     05/06/202     8/16/202     fire water pump EU-015     500 HP       AK-0085     GAS TREATMENT PLANT     08/13/202     8/16/202     fire water pump EU-015     186.6 gph     Good combustion practices and hours per year       TX-0933     NACERO PENWELL FACILITY     11/17/2021     3/8/202     Emergency Generators     0     limited to 100 hours per year       VA-0333     NORFOLK NAVAL SHIPYARD     12/09/202     3/8/202     One (1) emergency engine generator     2220 HP       TX-0915     UNIT 5     03/17/2021     3/8/202     DieSLE GENERATOR     0     LIMITED SOD HR/YR OPERATION       Wi-0286     SIO INTERNATIONAL WISCONSIN, INCENERGY PLANT     04/24/2018     3/8/2022     P42 - Diesel Fired Emergency Generator     2	1044 TON/YR	BACT-PSD
AK-0085     GAS TREATMENT PLANT     08/13/202     08/13/202     0ne (1) Black Start Generator Engine     186.6 gph     Good combustion practices and hour prevention       TX-093     NACERO PENWELL FACILITY     11/17/201     3/8/2022     mergency Generators     0     0     Imited to 100 hours prevention       VA-0333     NORFOLK NAVAL SHIPYARD     12/09/202     3/8/2022     One (1) emergency engine generator     2220 HP       TX-0915     UNIT 5     03/17/2021     3/8/2022     DieSLE GENERATOR     0     LIMICS 00 HX/RY OPERATION       Wi-0286     SIO INTERNATIONAL WISCONSIN, INCENERGY PLANT     04/24/2018     3/8/2022     P42 - Diesel Fired Emergency Generator     0     LIMIT 6-000 HZ/RY OPERATION	527.4 G/HP-HR	BACT-PSD
TX-0933     NACERO PENWELL FACILITY     11/17/2021     3/8/2022     Emergency Generators     0     Imited to 100 hours per year of operation. EPA Tier 2 (40 CFR A coperation. EPA Tier 2 (40 CFR		BACT-PSD
VA-0333         NORFOLK NAVAL SHIPYARD         12/09/202         3/8/202         One (1) emergency engine generator         2220 HP           TX-0915         UNIT 5         03/17/2021         3/8/2022         DIESL GENERATOR         0         LIMITED 500 HR/YR OPERATION           WI-0266         SIG INTERNATIONAL WISCONSIN, INCENERGY PLANT         04/24/2018         3/8/2022         P42 - Diesel Fired Emergency Generator         0         LIMITED 500 HR/YR OPERATION           WI-0266         SIG INTERNATIONAL WISCONSIN, INCENERGY PLANT         04/24/2018         3/8/2022         P42 - Diesel Fired Emergency Generator         0         Good Combustion Practices and Sulfur Fuel		BACT-PSD
WI-0286 SIO INTERNATIONAL WISCONSIN, INCENERGY PLANT 04/24/2018 3/8/2022 P42 -Diesel Fired Emergency Generator 0 Good Combustion Practices and Sulfur Fuel	2.543 LB	BACT-PSD BACT-PSD
	The Use of Ultra-low 0	BACT-PSD BACT-PSD
Practices	and Good Combustion 0	BACT-PSD
OH-0383         PETMIN USA INCORPORATED         07/17/2020         3/4/2022         Diesel-fired emergency fire pumps (2) (P009 and P010)         3131 HP         Tier IV engine and good combus		BACT-PSD
LA-0383 LAKE CHARLES LNG EXPORT TERMINAL 09/03/2020 3/4/2022 Emergency Engines (EQT0011 - EQT0016) 0 Comply with 40 CFR 60 Subpart	II 0	BACT-PSD
MI-0447 LBWL-ERICKSON STATION 01/07/2021 9/10/2021 EUEMGDemergency engine 4474.2 KW low carbon fuel (pipeline quality combustion practices, and energy and the state of the		BACT-PSD
TX-0905 DIAMOND GREEN DIESEL PORT ARTHUR FACILITY 09/16/2020 9/10/2021 EMERGENCY GENERATOR 0 limited to 100 hours per year of operation	on-emergency 0	BACT-PSD
LA-0364 FG LA COMPLEX 01/06/2020 8/9/2021 Emergency Generator Diesel Engines 550 hp Compliance with the limitations Subpart IIII and operating the er the engine manufacturer's instra procedures designed to maximi and minimize fuel usage.	ine in accordance with ctions and/or written	BACT-PSD
LA-0364 FG LA COMPLEX 01/06/2020 8/9/2021 Emergency Fire Water Pumps 550 hp Compliance with the limitations Subpart IIII and operating the er the engine manufacturer's instra procedures designed to maximi and minimize fuel usage.	ine in accordance with ctions and/or written	BACT-PSD
MI-0442 THOMAS TOWNSHIP ENERGY, LLC 08/21/2019 8/9/2021 FGEMENGINE 1100 KW	444 T/YR	BACT-PSD
MI-0441 LBWL-ERICKSON STATION 12/21/2018 8/9/2021 EUEMGD1A 1500 HP diesel fueled emergency engine 1500 HP Good combustion practices and measures.		BACT-PSD
MI-0441 LBWL-ERICKSON STATION 12/21/2018 8/9/2021 EUEMGD2A 6000 HP diesel fuel fired emergency engine 6000 HP Good combustion practices and measures.		BACT-PSD
MA-0043 MIT CENTRAL UTILITY PLANT 06/21/2017 8/9/2021 Cold Start Engine 19.04 MMBTU/HR	163.61 LB/MMBTU	BACT-PSD
IN-0317 RIVERVIEW ENERGY CORPORATION 06/11/2019 5/26/2021 Emergency generator EU-6006 2800 HP Tier II diesel engine	811 TONS	BACT-PSD
IN-0317 RIVERVIEW ENERGY CORPORATION 06/11/2019 5/26/2021 Emergency fire pump EU-6008 750 HP Engine that complies with Table	to Subpart IIII of Part 217 TONS	BACT-PSD
VA-0332 CHICKAHOMINY POWER LLC 06/24/2019 5/19/2021 Emergency Diesel Generator - 300 kW 500 H/YR good combustion practices, high the use of ultra low sulfur diesel	S15 ULSD) fuel oil with	BACT-PSD
AR-0161     SUN BIO MATERIAL COMPANY     09/23/2019     5/5/2021     Emergency Engines     0     Good Combustion Practices	164 LB/MMBTU	BACT-PSD

RBLCID	Facility Name	Permit Issuance Date	Date Last Updated	Process Name	Throughput	Control Method Description	Emission Limit EMISSION	N_LIMIT_1_A\ BASIS
*LA-0315		05/23/2014		Emergency Diesel Generator 1	5364 HP	Proper design and operation; energy efficiency	0	BACT-PSD
						measures		
*LA-0315	G2G PLANT	05/23/2014	4/5/2021	Emergency Diesel Generator 2	5364 HP	Proper design and operation; energy efficiency	0	BACT-PSD
*IA-0315	G2G PLANT	05/23/2014	4/5/2021	Fire Pump Diesel Engine 1	751 HP	measures Proper design and operation; use of ultra-low sulfur	0	BACT-PSD
510515	02010441	03/23/2014	4,3,2021		/3210	diesel	0	5/(01155
*LA-0315	G2G PLANT	05/23/2014	4/5/2021	Fire Pump Diesel Engine 2	751 HP	Proper design and operation; use of ultra-low sulfur	0	BACT-PSD
		07/22/2020	4/25/2024		2022 115	diesel	0	0.4 CT 0CD
KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021	EP 10-02 - North Water System Emergency Generator	2922 HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	BACT-PSD
KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021	EP 10-03 - South Water System Emergency Generator	2922 HP	This EP is required to have a Good Combustion and	0	BACT-PSD
						Operating Practices (GCOP) Plan.		
KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021	EP 10-04 - Emergency Fire Water Pump	920 HP	This EP is required to have a Good Combustion and	0	BACT-PSD
кү-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021	EP 10-07 - Air Separation Plant Emergency Generator	700 HP	Operating Practices (GCOP) Plan. This EP is required to have a Good Combustion and	0	BACT-PSD
		0772572020	1/20/2021	El 2007 fai separator faire Energency denerator	700 111	Operating Practices (GCOP) Plan.	0	5/(01155
KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021	EP 10-01 - Caster Emergency Generator	2922 HP	This EP is required to have a Good Combustion and	0	BACT-PSD
*MI-0445		44/26/2040	42/22/2020		22.00 1000711/11	Operating Practices (GCOP) Plan.	000 T/VD	BACT-PSD
TX-0888	INDECK NILES, LLC ORANGE POLYETHYLENE PLANT	11/26/2019 04/23/2020		EUEMENGINE (diesel fuel emergency engine) EMERGENCY GENERATORS & amp; FIRE WATER PUMP ENGINES	22.68 MMBTU/H 0	Good combustion practices well-designed and properly maintained engines and	928 T/YR 0	BACT-PSD BACT-PSD
17-0000		04/23/2020	11/12/2020	EWERGENCT GENERATORS wanp, FIRE WATER FOWF ENGINES	0	each limited to 100 hours per year of non-emergency	0	BACI-F3D
						use.		
TX-0876	PORT ARTHUR ETHANE CRACKER UNIT	02/06/2020	11/12/2020	Emergency generator	0	Tier 4 exhaust emission standards specified in 40 CFR §	0	BACT-PSD
						1039.101, limited to 100 hours per year of non-		
TX-0876	PORT ARTHUR ETHANE CRACKER UNIT	02/06/2020	11/12/2020	Emergency firewater pumps	0	emergency operation Tier 3 exhaust emission standards specified in 40 CFR §	0	BACT-PSD
		02/00/2020	11/12/2020			89.112, limited to 100 hours per year of non-emergency		5/(01155
						operation		
TX-0872	CONDENSATE SPLITTER FACILITY	10/31/2019	11/12/2020	Emergency Generators	0	Limiting duration and frequency of generator use to 100	0	BACT-PSD
						hr/yr. Good combustion practices will be used to reduce VOC including maintaining proper air-to-fuel ratio.		
						voe medaling mantaning proper an to racifacio.		
AR-0163	BIG RIVER STEEL LLC	06/09/2019			0	Good Combustion Practices	163 LB/MMBT	
*LA-0312	ST. JAMES METHANOL PLANT	06/30/2017	5/1/2020	DFP1-13 - Diesel Fire Pump Engine (EQT0013)	650 horsepower	Compliance with NSPS Subpart III	37 TPY	BACT-PSD
*LA-0312	ST. JAMES METHANOL PLANT	06/30/2017	5/1/2020	DEG1-13 - Diesel Fired Emergency Generator Engine (EQT0012)	1474 horsepower	Compliance with NSPS Subpart IIII	84 TPY	BACT-PSD
IL-0130 AK-0084	JACKSON ENERGY CENTER	12/31/2018		Emergency Engine	1500 kW 1500 kWe	Good Combustion Practices	225 TONS/YEA	AR BACT-PSD BACT-PSD
AK-0084 AK-0084	DONLIN GOLD PROJECT	06/30/2017 06/30/2017	4/16/2020 4/16/2020	Black Start and Emergency Internal Cumbustion Engines Twelve (12) Large ULSD/Natural Gas-Fired Internal Combustion Engines	143.5 MMBtu/hr	Good Computition Practices Good Cumbustion Practices	2781 TPY 1299630 TPY (ULSD	
PA-0291	HICKORY RUN ENERGY STATION	04/23/2013	3/2/2020	EMERGENCY GENERATOR	7.8 MMBTU/H	Good cumbustion Practices	80.5 TPY	OTHER CASE
OH-0379	PETMIN USA INCORPORATED	02/06/2019		Emergency Generators (P005 and P006)	3131 HP	Tier IV engine	3632 LB/H	BACT-PSD
011-0375	PE ININ USA INCORPORATED	02/00/2015	0/13/2013	Energency Generators (P005 and P000)	5151 HP	Good combustion practices	3032 LB/H	BACI-F3D
OH-0378	PTTGCA PETROCHEMICAL COMPLEX	12/21/2018	6/19/2019	Emergency Diesel-fired Generator Engine (P007)	3353 HP	good operating practices (proper maintenance and	200 T/YR	BACT-PSD
						operation)		
OH-0378	PTTGCA PETROCHEMICAL COMPLEX	12/21/2018	6/19/2019	1,000 kW Emergency Generators (P008 - P010)	1341 HP	good operating practices (proper maintenance and operation)	80 T/YR	BACT-PSD
OH-0377	HARRISON POWER	04/19/2018	6/19/2019	Emergency Diesel Generator (P003)	1860 HP	Efficient design and proper maintenance and operation	109.2 T/YR	BACT-PSD
011 0577		04/15/2010	0/10/2010		1000 111	Enterna design and proper maintenance and operation	103.2 1711	5/10/11/50
OH-0376	IRONUNITS LLC - TOLEDO HBI	02/09/2018	6/19/2019	Emergency diesel-fired generator (P007)	2682 HP	Equipment design and maintenance requirements	163.6 LB/MMBT	
OH-0375	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	11/07/2017	6/19/2019	Emergency Diesel Generator Engine (P001)	2206 HP	Efficient design	116.8 T/YR	BACT-PSD
OH-0375	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	11/07/2017			700 HP	Efficient design	40.1 T/YR	BACT-PSD
OH-0374	GUERNSEY POWER STATION LLC	10/23/2017	6/19/2019	Emergency Generators (2 identical, P004 and P005)	2206 HP	good operating practices (proper maintenance and	120 T/YR	BACT-PSD
OH-0372	OREGON ENERGY CENTER	09/27/2017	6/19/2019	Emergency generator (P003)	1529 HP	operation) state of the art combustion design	445 T/YR	BACT-PSD
OH-0372	TRUMBULL ENERGY CENTER	09/07/2017		Emergency generator (P003)	1529 HP	Efficient design	445 T/YR	BACT-PSD
OH-0368	PALLAS NITROGEN LLC	04/19/2017		Emergency Generator (P009)	5000 HP	good combustion control and operating practices and	1289 T/YR	BACT-PSD
011 0500		04/13/2017	0/13/2013	Enclosed delicities (1993)	5000 111	engines designed to meet the stands of 40 CFR Part 60, Subpart III	1105 1/11	5,101135
OH-0367	SOUTH FIELD ENERGY LLC	09/23/2016	6/19/2019	Emergency generator (P003)	2947 HP	Efficient design	858 T/YR	BACT-PSD
OH-0366	CLEAN ENERGY FUTURE - LORDSTOWN, LLC	08/25/2015			2346 HP	Efficient design	683 T/YR	BACT-PSD
LA-0331	CALCASIEU PASS LNG PROJECT	09/21/2018	6/19/2019	Firewater Pumps	634 kW	Good Combustion Practices and Good Operation and	44 T/YR	BACT-PSD
						Maintenance Practices.		
LA-0331	CALCASIEU PASS LNG PROJECT	09/21/2018	6/19/2019	Large Emergency Engines (>50kW)	5364 HP	Good Combustion of Practices and Good Operation and Maintenance Practices	1481 T/YR	BACT-PSD
VA-0328	C4GT, LLC	04/26/2018	6/19/2019	Emergency Diesel GEN	500 H/YR	use of S15 ULSD and high efficiency design and	981 T/YR	BACT-PSD
		,,	-,,			operation		
VA-0325	GREENSVILLE POWER STATION	06/17/2016			0	Good Combustion Practices/Maintenance	163.6 LB/MMBT	
	NTE OHIO, LLC	11/05/2014	4/1/2019	Emergency generator (P002)	1100 KW	Emergency operation only, < 500 hours/year each for	474 T/YR	BACT-PSD
						maintenance checks and readiness testing designed to		
OH-0363						meet NSPS Subpart IIII		
OH-0363	CARROLL COUNTY ENERGY	11/05/2012	4/1/2019	Emergency generator (P003)	1112 KW		433 96 T/VR	BACT-PSD
OH-0363 OH-0360		11/05/2013 07/30/2018	4/1/2019 2/19/2019	Emergency generator (P003) Emergency Engines	1112 KW 0		433.96 T/YR 0	BACT-PSD BACT-PSD
OH-0363 OH-0360 IL-0129	CARROLL COUNTY ENERGY CPV THREE RIVERS ENERGY CENTER BELLE RIVER COMBINED CYCLE POWER PLANT		2/19/2019	Emergency Engines		Energy efficient design.		
	CPV THREE RIVERS ENERGY CENTER	07/30/2018	2/19/2019 2/19/2019	Emergency Engines EUEMENGINE: Emergency engine	0	Energy efficient design. Good combustion practices.	0	BACT-PSD

RBLCID		Permit Issuance Date	Date Last Updated	Process Name	Throughput	Control Method Description	Emission Limit EMISSION_LIMIT	1_A\ BASIS
OH-0359	DTE MARIETTA	03/31/2014	2/19/2019	black start generator w/ 1,141 hp diesel engine (P002)	1141 HP	Fuel efficient engine (good combustion practices)	65.3 T/YR	BACT-PSD
PA-0311	MOXIE FREEDOM GENERATION PLANT	09/01/2015	12/21/2018		0	, , , , , , , , , , , , , , , , , , , ,	44 TPY	BACT-PSD
PA-0311	MOXIE FREEDOM GENERATION PLANT	09/01/2015		Fire Pump Engine	0		14 TPY	BACT-PSD
PA-0309	LACKAWANNA ENERGY CTR/JESSUP	12/23/2015		2000 kW Emergency Generator	0		81 TONS	BACT-PSD
OK-0156	NORTHSTAR AGRI IND ENID	07/31/2013		Fire Pump Engine	550 hp	Good Combustion	0	BACT-PSD
LA-0323	MONSANTO LULING PLANT	01/09/2017		Fire Water Diesel Pump No. 3 Engine	600 hp	Proper operation and limits on hours operation for	0	BACT-PSD
			-,,			emergency engines and compliance with 40 CFR 60 Subpart IIII	-	
LA-0323	MONSANTO LULING PLANT	01/09/2017	5/11/2018	Fire Water Diesel Pump No. 4 Engine	600 hp	Proper operation and limits on hours of operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0	BACT-PSD
WV-0025	MOUNDSVILLE COMBINED CYCLE POWER PLANT	11/21/2014	5/1/2018	Emergency Generator	2015.7 HP		2416 LB/H	BACT-PSD
MI-0423	INDECK NILES, LLC	01/04/2017	3/8/2018	EUEMENGINE (Diesel fuel emergency engine)	22.68 MMBTU/H	Good combustion practices	928 T/YR	BACT-PSD
MI-0425	GRAYLING PARTICLEBOARD	05/09/2017	11/15/2017	EUEMRGRICE1 in FGRICE (Emergency diesel generator engine)	500 H/YR	Good combustion and design practices.	209 T/YR	BACT-PSD
MI-0425	GRAYLING PARTICLEBOARD	05/09/2017	11/15/2017	EUEMRGRICE2 in FGRICE (Emergency Diesel Generator Engine)	500 H/YR	Good combustion and design practices.	70 T/YR	BACT-PSD
MI-0425	GRAYLING PARTICLEBOARD	05/09/2017	11/15/2017	EUFIREPUMP in FGRICE (Diesel fire pump engine)	500 H/YR	Good combustion and design practices.	56 T/YR	BACT-PSD
IN-0263	MIDWEST FERTILIZER COMPANY LLC	03/23/2017	8/22/2017	EMERGENCY GENERATORS (EU014A AND EU-014B)	3600 HP EACH	GOOD COMBUSTION PRACTICES	1044 TON/12 CONSEC.	MON BACT-PSD
MI-0421	GRAYLING PARTICLEBOARD	08/26/2016			500 H/YR	Good combustion and design practices.	223 T/YR	BACT-PSD
MI-0421	GRAYLING PARTICLEBOARD	08/26/2016			500 H/YR	Good combustion and design practices.	56 T/YR	BACT-PSD
LA-0308	MORGAN CITY POWER PLANT	09/26/2013		2000 KW Diesel Fired Emergency Generator Engine	20.4 MMBTU/hr	Good combustion practices	0	BACT-PSD
LA-0317	METHANEX - GEISMAR METHANOL PLANT	12/22/2016		Emergency Generator Engines (4 units)	0	complying with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZ	0	BACT-PSD
LA-0317	METHANEX - GEISMAR METHANOL PLANT	12/22/2016	4/28/2017	Firewater pump Engines (4 units)	896 hp (each)	complying with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	0	BACT-PSD
LA-0316	CAMERON LNG FACILITY	02/17/2017	4/28/2017	emergency generator engines (6 units)	3353 hp	good combustion practices	0	BACT-PSD
LA-0313	ST. CHARLES POWER STATION	08/31/2016	4/28/2017	SCPS Emergency Diesel Generator 1	2584 HP	Good combustion practices	0	BACT-PSD
LA-0309	BENTELER STEEL TUBE FACILITY	06/04/2015	4/28/2017	Emergency Generator Engines	2922 hp (each)		0	BACT-PSD
LA-0307	MAGNOLIA LNG FACILITY	03/21/2016	4/28/2017	Diesel Engines	0	good combustion/operating/maintenance practices	0	BACT-PSD
LA-0305	LAKE CHARLES METHANOL FACILITY	06/30/2016		Diesel Engines (Emergency)	4023 hp	Complying with 40 CFR 60 Subpart IIII	0	BACT-PSD
LA-0296	LAKE CHARLES CHEMICAL COMPLEX LDPE UNIT	05/23/2014	4/28/2017	Emergency Diesel Generators (EQTs 622, 671, 773, 850, 994, 995, 996, 1033,	2682 HP	Compliance with 40 CFR 60 Subpart IIII; operating the engine in accordance with the engine manufacturer∂€ <sup>rm</sup> instructions and/or written procedures (consistent with safe operation) designed to maximize combustion	56 TPY	BACT-PSD
LA-0292 LA-0288	HOLBROOK COMPRESSOR STATION LAKE CHARLES CHEMICAL COMPLEX	01/22/2016 05/23/2014		Emergency Generators No. 1 & No. 2 Emergency Diesel Generators (EQT 629, 639, 838, 966, & 1264)	1341 HP 2682 HP	Comply with 40 CFR 60 Subpart IIII; operate the engine in accordance with the engine manufacturerac <sup>ws</sup> instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage	77 TPY 56 TPY	BACT-PSD BACT-PSD
OK-0154	MOORELAND GENERATING STA	07/02/2013	7/20/2016	DIESEL-FIRED EMERGENCY GENERATOR ENGINE	1341 HP	usage. A TIER 3 CERTIFIED ENGINE OPERATED < 100 HR/YR.	81.2 TPY	BACT-PSD
TX-0154	BEAUMONT TERMINAL	06/08/2016	7/7/2016	Fire pump engines	0	Equipment specifications and good combustion practices. Operation limited to 100 hours per year.	72.16 T/YR	BACT-PSD BACT-PSD
MI-0406	RENAISSANCE POWER LLC	11/01/2013	7/7/2016	FG-EMGEN7-8; Two (2) 1,000kW diesel-fueled emergency reciprocating inter	1000 kW	Good combustion practices.	1731.4 T/YR	BACT-PSD
FL-0347	ANADARKO PETROLEUM CORPORATION - EGOM	09/16/2014	7/6/2016	Source Wide Emissions	0	good combustion practices based on the most recent manufacturer's specification issued for engines and with turbocharger, aftercooler, and high injection pressure where applicable	74571 TONS	BACT-PSD BACT-PSD
TX-0766	GOLDEN PASS LNG EXPORT TERMINAL	09/11/2015	7/6/2016	Emergency Engine Generators	750 hp	Equipment specifications & work practices - Good combustion practices and limited operational hours	40 HR/YR	BACT-PSD
OK-0164	MIDWEST CITY AIR DEPOT	01/08/2015	7/6/2016	Jet Engine Testing Cells	65000 FT-LB THRUST		2481 TONS PER YEAR	BACT-PSD
IN-0185	MAG PELLET LLC	04/24/2014	5/13/2016	DIESEL FIRE PUMP	300 HP		31.11 CO2E	BACT-PSD
IN-0180	MIDWEST FERTILIZER CORPORATION	06/04/2014	5/5/2016	DIESEL FIRED EMERGENCY GENERATOR	3600 BHP	GOOD COMBUSTION PRACTICES	526.39 G/B-HP-H	BACT-PSD
IL-0114	CRONUS CHEMICALS, LLC	09/05/2014	5/5/2016	Emergency Generator	3755 HP	Tier IV standards for non-road engines at 40 CFR 1039.102, Table 7.	432 TPY	BACT-PSD
PR-0009	ENERGY ANSWERS ARECIBO PUERTO RICO RENEWABLE ENERGY	04/10/2014	5/5/2016	Emergency Diesel Generator	0		183 T/YR	BACT-PSD
MA-0039	SALEM HARBOR STATION REDEVELOPMENT	01/30/2014	5/5/2016	Emergency Engine/Generator	7.4 MMBTU/H		162.85 LB/MMBTU	BACT-PSD
CO-0067	LANCASTER PLANT	06/04/2013	5/5/2016	Emergency Generator	19950 gal per year	NSPS IIII compliant.	0	BACT-PSD
IN-0179	OHIO VALLEY RESOURCES, LLC	09/25/2013	5/4/2016	DIESEL-FIRED EMERGENCY GENERATOR	4690 B-HP	GOOD COMBUSTION PRACTICES	526.39 G/B-HP-H	BACT-PSD
IN-0173	MIDWEST FERTILIZER CORPORATION	06/04/2014	5/4/2016	DIESEL FIRED EMERGENCY GENERATOR	3600 BHP	GOOD COMBUSTION PRACTICES	526.39 G/BHP-H	BACT-PSD
IA-0106	CF INDUSTRIES NITROGEN, LLC - PORT NEAL NITROGEN COMPLE		5/4/2016	Emergency Generators	180 GAL/H	good combustion practices	1.55 LB/KW-H	BACT-PSD
LA-0272	AMMONIA PRODUCTION FACILITY	03/27/2013	5/4/2016	EMERGENCY DIESEL GENERATOR (2205-B)	1200 HP	ENERGY EFFICIENCY MEASURES	0	BACT-PSD
OH-0355	GENERAL ELECTRIC AVIATION, EVENDALE PLANT	05/07/2013	5/4/2016	Test Cell 1 for Aircraft Engines and Turbines	0		74000 T/YR	N/A
OH-0355	GENERAL ELECTRIC AVIATION, EVENDALE PLANT	05/07/2013	5/4/2016	Test Cell 2 for Aircraft Engines and Turbines	0		74000 T/YR	N/A
IA-0106	CF INDUSTRIES NITROGEN, LLC - PORT NEAL NITROGEN COMPLE		5/4/2016	Emergency Generators	180 GAL/H	good combustion practices	509 TONS/YR	BACT-PSD
OH-0352	OREGON CLEAN ENERGY CENTER	06/18/2013	5/4/2016	Emergency generator	2250 KW	Poor composition highlines	878 T/YR	BACT-PSD BACT-PSD
AK-0082	POINT THOMSON PRODUCTION FACILITY	01/23/2015	2/19/2016	Emergency Generators	2250 KW 2695 hp		2332 TONS/YEAR	BACT-PSD BACT-PSD
AK-0082 AK-0082	POINT THOMSON PRODUCTION FACILITY	01/23/2015	2/19/2010	Fine Water Pumps	610 hp		565 TONS/YEAR	BACT-PSD BACT-PSD
AK-0082 AK-0082	POINT THOMSON PRODUCTION FACILITY	01/23/2015	2/19/2016		891 hp		7194 TONS/YEAR	BACT-PSD BACT-PSD
AK-0082 AK-0081	POINT THOMSON PRODUCTION FACILITY	06/12/2013	1/8/2016	Combustion	610 hp	Good Combustion and Operating Practices	0	OTHER CASE
AK-UU81	POINT FROIVISON PRODUCTION FACILITY	00/12/2013	1/8/2014	Compussion	610 nb	GOOD COMPUSSION and Operating Practices	U	UTHER CAS

### Table C-19. RBLC SO<sub>2</sub> Summary for Emergency Generator, Diesel-Fired

RBLCID	Facility Name	Permit Issuance Date	Date Last Updated	Process Name	Throughput	Control Method Description	Emission Limit EMISSION_LIMIT_	1 AV BASIS
MI-0452	MEC SOUTH, LLC	06/23/2022	4/25/2023	EUEMENGINE (South Plant): Emergency engine	1341 HP	Good Combustion Practices and meeting NSPS Subpart	15 PPM	BACT-PSD
1111-0452		00/25/2022	4/23/2023	EDEMENTINE (South hand). Emergency engine	1541 11	III requirements		DACI-13D
MI-0451	MEC NORTH, LLC	06/23/2022	4/25/2023	EUEMENGINE (North Plant): Emergency engine	1341 HP	Good combustion practices and meeting NSPS Subpart IIII requirements.	15 PPM	BACT-PSD
AR-0177	NUCOR STEEL ARKANSAS	11/21/2022	4/25/2023	SN-230 Galvanizing Line No, 2 Emergency Generator	3634 Horsepower	Fuel Specification	15 PPM FUEL	BACT-PSD
*IN-0359	NUCOR STEEL	03/30/2023	4/11/2023	Emergency Generator (CC-GEN1)	3000 Horsepower	ultra-low sulfur diesel fuel (0.0015%S)	0	BACT-PSD
KS-0036	WESTAR ENERGY - EMPORIA ENERGY CENTER	03/18/2013	3/1/2023	Caterpillar C18DITA Diesel Engine Generator	900 BHP	use low sulfur fuel oil	0.05 % SULFUR	BACT-PSD
IL-0133	LINCOLN LAND ENERGY CENTER	07/29/2022	12/6/2022	Emergency Engines	1250 kW	Use of ultra-low sulfur diesel, with a sulfur content < 15 ppm sulfur.	0	BACT-PSD
AK-0088	LIQUEFACTION PLANT	07/07/2022	8/16/2022	Diesel Fire Pump Engine	27.9 Gal/hr	Good Combustion Practices; ULSD; Limited Operation;	15 PPMW SULFUR IN	FUEL BACT-PSD
AK-0085	GAS TREATMENT PLANT	08/13/2020	8/16/2022	One (1) Black Start Generator Engine	186.6 gph	Good combustion practices, ULSD, and limit operation to 500 hours per year.	15 PPMW SULFUR IN	FUEL BACT-PSD
TX-0933	NACERO PENWELL FACILITY	11/17/2021	3/8/2022	Emergency Generators	0	limited to 100 hours per year of non-emergency operation. EPA Tier 2 (40 CFR § 1039.101) exhaust emission standards	0	BACT-PSD
WI-0286	SIO INTERNATIONAL WISCONSIN, INCENERGY PLANT	04/24/2018	3/8/2022	P42 -Diesel Fired Emergency Generator	0	Good Combustion Practices and The Use of Ultra-low Sulfur Fuel	0	BACT-PSD
WI-0284	SIO INTERNATIONAL WISCONSIN, INCENERGY PLANT	04/24/2018	3/8/2022	Diesel-Fired Emergency Generators	0	The Use of Ultra-Low Sulfur Fuel and Good Combustion Practices	0	BACT-PSD
FL-0371	SHADY HILLS COMBINED CYCLE FACILITY	06/07/2021	3/4/2022	1,500 kW Emergency Diesel Generator	14.82 MMBtu/hour		15 PPM S IN FUEL	BACT-PSD
AL-0328	PLANT BARRY	11/09/2020	3/4/2022	Diesel Emergency Engines	0		15 PPM	BACT-PSD
FL-0367	SHADY HILLS COMBINED CYCLE FACILITY	07/27/2018	3/4/2022	1,500 kW Emergency Diesel Generator	14.82 MMBtu/hour	Clean fuel	15 PPM S IN FUEL	BACT-PSD
FL-0363	DANIA BEACH ENERGY CENTER	12/04/2017	3/4/2022	Two 3300 kW emergency generators	0	Clean fuel	15 PPM S IN FUEL	BACT-PSD
TX-0904	MOTIVA POLYETHYLENE MANUFACTURING COMPLEX	09/09/2020	12/1/2021	EMERGENCY GENERATOR	0	100 HOURS OPERATIONS, Tier 4 exhaust emission standards specified in 40 CFR § 1039.101	0	BACT-PSD
LA-0364	FG LA COMPLEX	01/06/2020	8/9/2021	Emergency Generator Diesel Engines	550 hp	Compliance with the limitations imposed by 40 CFR 63 Subpart IIII and operating the engine in accordance with the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.		BACT-PSD
LA-0364	FG LA COMPLEX	01/06/2020	8/9/2021	Emergency Fire Water Pumps	550 hp	Compliance with the limitations imposed by 40 CFR 63 Subpart IIII and operating the engine in accordance with the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.		BACT-PSD
MA-0043	MIT CENTRAL UTILITY PLANT	06/21/2017	8/9/2021	Cold Start Engine	19.04 MMBTU/HR		0.029 LB/HR	OTHER CAS
LA-0350	BENTELER STEEL TUBE FACILITY	03/28/2018	8/6/2021	emergency generators (3 units) EQT0039, EQT0040, EQT0041	0	Comply with 40 CFR 60 Subpart IIII	0	BACT-PSD
IN-0317	RIVERVIEW ENERGY CORPORATION	06/11/2019	5/26/2021		2800 HP	ULSD	15 PPM	BACT-PSD
IN-0317	RIVERVIEW ENERGY CORPORATION	06/11/2019	5/26/2021	Emergency fire pump EU-6008	750 HP	Engine that complies with Table 4 to Subpart IIII of Part 60	15 PPM	BACT-PSD
VA-0332	CHICKAHOMINY POWER LLC	06/24/2019	5/19/2021	Emergency Diesel Generator - 300 kW	500 H/YR	fuel sulfur limitation good combustion practices, high efficiency design, and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	0.0015 LB/MMBTU	BACT-PSD
TX-0911	FORMOSA POINT COMFORT PLANT	12/15/2020	5/10/2021	EMERGENCY GENERATOR ENGINE	0	ULTRA LOW SULFUR FUEL	0	BACT-PSD
AR-0161	SUN BIO MATERIAL COMPANY	09/23/2019	5/5/2021	Emergency Engines	0	Good Operating Practices, limited hours of operation,	0.007 G/KW-HR	BACT-PSD
KY-0110	NUCOR STEFI BRANDENBURG	07/23/2020		EP 10-02 - North Water System Emergency Generator	2922 HP	Compliance with NSPS Subpart IIII This EP is required to have a Good Combustion and	0	BACT-PSD
KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020		EP 10-02 - North Water System Emergency Generator	2922 HP	Operating Practices (GCOP) Plan. This EP is required to have a Good Combustion and	0	BACT-PSD
	NUCOR STEEL BRANDENBURG				920 HP	Operating Practices (GCOP) Plan.	0	BACT-PSD BACT-PSD
КҮ-0110 КҮ-0110	NUCOR STEEL BRANDENBURG	07/23/2020		EP 10-04 - Emergency Fire Water Pump	920 HP 700 HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	BACT-PSD BACT-PSD
		07/23/2020		EP 10-07 - Air Separation Plant Emergency Generator		This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	-	
KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020		EP 10-01 - Caster Emergency Generator	2922 HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	BACT-PSD
*MI-0445	INDECK NILES, LLC	11/26/2019		EUEMENGINE (diesel fuel emergency engine)	22.68 MMBTU/H	Good Combustion Practices and meeting NSPS Subpart IIII requirements	15 PPM	BACT-PSD
TX-0888 TX-0876	ORANGE POLYETHYLENE PLANT PORT ARTHUR ETHANE CRACKER UNIT	04/23/2020 02/06/2020		EMERGENCY GENERATORS & amp; FIRE WATER PUMP ENGINES Emergency generator	0 0	ultra-low sulfur diesel (15 ppmw sulfur content). Tier 4 exhaust emission standards specified in 40 CFR ŧ 1039.101, limited to 100 hours per year of non- emergency operation	0 15 PPMW	BACT-PSD BACT-PSD
TX-0876	PORT ARTHUR ETHANE CRACKER UNIT	02/06/2020	11/12/2020	Emergency firewater pumps	0	Tier 3 exhaust emission standards specified in 40 CFR § 89.112, limited to 100 hours per year of non-emergency operation		BACT-PSD
AR-0163	BIG RIVER STEEL LLC	06/09/2019	11/10/2020	Emergency Engines	0	Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	0.0015 % SULFUR FUEL	BACT-PSD
MD-0042	WILDCAT POINT GENERATION FACILITY	04/08/2014	8/12/2020	EMERGENCY GENERATOR 1	2250 KW	USE OF ULTRA-LOW DIESEL SULFUR FUEL, LIMITED HOURS OF OPERATION AND DESIGNED TO MEET NSPS SUBPART IIII LIMITS	0.006 G/B-HP-H	BACT-PSD

## Table C-19. RBLC SO<sub>2</sub> Summary for Emergency Generator, Diesel-Fired

		Permit	Date Last					
RBLCID		Issuance Date		Process Name	Throughput	Control Method Description	Emission Limit EMISSION_LIMIT_	-
TX-0728	PEONY CHEMICAL MANUFACTURING FACILITY	04/01/2015	1/31/2020	Emergency Diesel Generator	1500 hp	Low sulfur fuel 15 ppmw	0.61 LB/H	OTHER CASE
OH-0377	HARRISON POWER	04/19/2018	6/19/2019	Emergency Diesel Generator (P003)	1860 HP	ultra-low sulfur diesel (ULSD) fuel with a sulfur content	0.0015 LB/MMBTU	BACT-PSD
						of less than 15 ppm (0.0015 percent by weight)		
OH-0374	GUERNSEY POWER STATION LLC	10/23/2017	6/10/2010	Emergency Generators (2 identical, P004 and P005)	2206 HP	ultra-low sulfur diesel (ULSD) fuel with a sulfur content	0.0015 LB/MMBTU	BACT-PSD
/1-05/4	definiser rowen startowere	10/23/2017	0/15/2015	Energency denerators (2 identical, 1004 and 1005)	2200 11	of less than 15 ppm (0.0015 percent by weight)	0.0019 20/14/10/10	BACIND
OH-0372	OREGON ENERGY CENTER	09/27/2017	6/19/2019		1529 HP	Ultra low sulfur diesel fuel	0.016 LB/H	BACT-PSD
OH-0370	TRUMBULL ENERGY CENTER	09/07/2017	6/19/2019	Emergency generator (P003)	1529 HP	Ultra low sulfur diesel fuel	0.016 LB/H	BACT-PSD
OH-0367	SOUTH FIELD ENERGY LLC	09/23/2016	6/19/2019	Emergency generator (P003)	2947 HP	Ultra low sulfur diesel fuel	0.03 LB/H	BACT-PSD
LA-0331	CALCASIEU PASS LNG PROJECT	09/21/2018	6/19/2019	Firewater Pumps	634 kW	Ultra-Low Sulfur Diesel Fuel with Sulfur Content of 15	0.04 LB/GAL	BACT-PSD
A-0331	CALCASIEU PASS LNG PROJECT	09/21/2018	6/19/2019	Large Emergency Engines (>50kW)	5364 HP	Ultra-low sulfur diesel fuel with sulfur content of 15	0 LB/HP-H	BACT-PSD
LA 0551		05/21/2010	0/15/2015		5504 11	ppmv.	0 20/11-11	BACTIBB
VA-0328	C4GT, LLC	04/26/2018	6/19/2019	Emergency Diesel GEN	500 H/YR	good combustion practices and the use of ultra low	0	BACT-PSD
						sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur		
						content of 15 ppmw.		
VA-0325	GREENSVILLE POWER STATION	06/17/2016	6/19/2019	DIESEL-FIRED EMERGENCY GENERATOR 3000 kW (1)	0	Ultra Low Sulfur Diesel/Fuel (15 ppm max)	0.0015 LB/MMBTU	N/A
TX-0671	PROJECT JUMBO	12/01/2014	3/6/2019	Engines	0	Ultra low sulfur fuel engines burn will meet the sulfur	0.0649 G/KW-H	BACT-PSD
						requirement of 15 ppm in 40CFR80.510(b)		
MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	06/29/2018	2/19/2019	EUEMENGINE (North Plant): Emergency Engine	1341 HP	Good combustion practices and meeting NSPS Subpart IIII requirements.	15 PPM	BACT-PSD
MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	06/29/2018	2/19/2019	EUEMENGINE (South Plant): Emergency Engine	1341 HP	Good combustion practices and meeting NSPS Subpart	15 PPM	BACT-PSD
						IIII requirements.		
MI-0423	INDECK NILES, LLC	01/04/2017	3/8/2018	EUEMENGINE (Diesel fuel emergency engine)	22.68 MMBTU/H	Good combustion practices and meeting NSPS Subpart	15 PPM	BACT-PSD
						IIII requirements.		
NY-0104	CPV VALLEY ENERGY CENTER	08/01/2013	9/28/2017	Emergency generator	0	Ultra low sulfur diesel with maximum sulfur content 0.0015 percent.	0.0014 LB/MMBTU	BACT-PSD
LA-0309	BENTELER STEEL TUBE FACILITY	06/04/2015	4/28/2017	Emergency Generator Engines	2922 hp (each)		0	BACT-PSD
LA-0305	LAKE CHARLES METHANOL FACILITY	06/30/2016	4/28/2017	Diesel Engines (Emergency)	4023 hp	Complying with 40 CFR 60 Subpart IIII	0	BACT-PSD
LA-0296	LAKE CHARLES CHEMICAL COMPLEX LDPE UNIT	05/23/2014	4/28/2017	Emergency Diesel Generators (EQTs 622, 671, 773, 850, 994, 995, 996, 1033,	2682 HP	Compliance with 40 CFR 60 Subpart IIII; operating the engine in accordance with the engine manufacturer〙 instructions and/or written procedures (consistent with safe operation) designed to maximize combustion afficience and activities for uncere and the sub-	0.03 LB/HR s	BACT-PSD
						efficiency and minimize fuel usage.		
AR-0140	BIG RIVER STEEL LLC	09/18/2013	12/13/2016	EMERGENCY GENERATORS	1500 KW	GOOD O	20 %	BACT-PSD
LA-0288	LAKE CHARLES CHEMICAL COMPLEX	05/23/2014	9/14/2016	Emergency Diesel Generators (EQT 629, 639, 838, 966, & amp; 1264)	2682 HP	Comply with 40 CFR 60 Subpart IIII; operate the engine	0.03 LB/HR	BACT-PSD
						in accordance with the engine manufacturer's		
						instructions and/or written procedures designed to		
						maximize combustion efficiency and minimize fuel		
						usage.		
FL-0349	STATOIL GULF SERVICES, LLC	08/14/2014	7/7/2016	Source Wide Limits	0	Certification of sulfur content of fuel from fuel supplier	15 PPM	BACT-PSD
FL-0350	ANADARKO PETROLEUM, INC DIAMOND BLACKHAWK DRILLING	12/31/2014	7/7/2016	Sourcewide Limits	0	Obtain certification of sulfur content from the fuel	15 PPM	BACT-PSD
12 0000		12/01/2014	1,1,2010	Sourcewide Ennis	Ū	supplier for all diesel fuel used on the BlackHawk and	10 11 11	5/101 1 55
						used in all equipment and vessels used during well		
						completion		
FL-0356	OKEECHOBEE CLEAN ENERGY CENTER	03/09/2016	7/6/2016	Three 3300-kW ULSD emergency generators	0	Use of ULSD	0.0015 % S IN ULSD	BACT-PSD
FL-0347	ANADARKO PETROLEUM CORPORATION - EGOM	09/16/2014	7/6/2016	Source Wide Emissions	0	Use diesel fuel with a sulfur content no greater than 15	15 PPM	BACT-PSD
12 0547		03/10/2014	77072020		ŭ	parts per million (ppm) by weight in any diesel fueled emission unit on the Discoverer Spirit or on any support vessel		Bitch 155
IN-0185	MAG PELLET LLC	04/24/2014	5/13/2016	DIESEL FIRE PUMP	300 HP	VESSEL	0.29 LB/MMBTU	BACT-PSD
FL-0346	LAUDERDALE PLANT	04/22/2014	5/5/2016	Four 3100 kW black start emergency generators	2.32 MMBtu/hr (HHV)	per el UI SD required	15 PPM SULFUR IN FU	
PR-0009	ENERGY ANSWERS ARECIBO PUERTO RICO RENEWABLE ENERGY		5/5/2016	Emergency Diesel Generator	0	ser el ocoo requireu	0.006 LB/H	BACT-PSD BACT-PSD
MA-0039		04/10/2014	5/5/2016	Emergency Engine/Generator	7.4 MMBTU/H		0.011 LB/H	OTHER CASE
OH-0355	GENERAL ELECTRIC AVIATION, EVENDALE PLANT	01/30/2014	5/5/2016	Test Cell 1 for Aircraft Engines and Turbines	0		0.11 LB/MMBTU	N/A
OH-0355 OH-0355	GENERAL ELECTRIC AVIATION, EVENDALE PLANT	05/07/2013	5/4/2016	Test Cell 2 for Aircraft Engines and Turbines	0		0.11 LB/MMBTU	N/A
OH-0355	OREGON CLEAN ENERGY CENTER	06/18/2013	5/4/2016	Emergency generator	2250 KW		0.03 LB/H	N/A
PA-0291	HICKORY RUN ENERGY STATION	00/18/2013	3/2/2020	EMERGENCY GENERATOR	7.8 MMBTU/H		0.01 LB/H	OTHER CASE
	TALLADEGA SAWMILL	12/18/2017	., ,	250 Hp Emergency CI, Diesel-fired RICE	0		0	N/A
0510		, 10, 2017	_0, 11, 2015		5		5	

### Table C-20. RBLC H<sub>2</sub>SO<sub>4</sub> Summary for Emergency Generator, Diesel-Fired

P When Allower							
Facility Name	Issuance Date	Updated	Process Name	Throughput	Control Method Description	Emission Limit EMISSION_LIMIT_1_	_A\ BASIS
WESTAR ENERGY - EMPORIA ENERGY CENTER	03/18/2013	3/1/2023	Caterpillar C18DITA Diesel Engine Generator	900 BHP	use low sulfur fuel oil	0.05 % S	BACT-PSD
LINCOLN LAND ENERGY CENTER	07/29/2022	12/6/2022	Emergency Engines	1250 kW	Use of ultra-low sulfur diesel, with a sulfur content < 15	0	BACT-PSD
					ppm sulfur.		
NEMADJI TRAIL ENERGY CENTER	09/01/2020	9/16/2022	Emergency Diesel Generator (P07)	1490 HP	Operation limited to 500 hours/year, sulfur content of	0	BACT-PSD
					the diesel fuel oil fired may not exceed 15 ppm, and		
					permittee shall operate and maintain generator		
					according to the manufacturer's recommendations.		
MIT CENTRAL UTILITY PLANT	06/21/2017	8/9/2021	Cold Start Engine	19.04 MMBTU/HR		0.022 LB/HR	OTHER CASE
CHICKAHOMINY POWER LLC	06/24/2019	5/19/2021	Emergency Diesel Generator - 300 kW	500 H/YR	good combustion practices, high efficiency design, and	0.0001 LB/MMBTU	BACT-PSD
			• ,		the use of ultra low sulfur diesel (S15 ULSD) fuel oil with		
					a maximum sulfur content of 15 ppmw.		
WILDCAT POINT GENERATION FACILITY	04/08/2014	8/12/2020	EMERGENCY GENERATOR 1	2250 KW	USE OF ULTRA-LOW DIESEL SULFUR FUEL, LIMITED	0.006 G/HP-H	BACT-PSD
					HOURS OF OPERATION AND DESIGNED TO MEET		
					SUBPART IIII LIMITS		
HARRISON POWER	04/19/2018	6/19/2019	Emergency Diesel Generator (P003)	1860 HP	ultra-low sulfur diesel (ULSD) fuel with a sulfur content	7.3 X10-4 LB/MMBTU	BACT-PSD
					of less than 15 ppm (0.0015 percent by weight)		
LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	11/07/2017	6/19/2019	Emergency Diesel Generator Engine (P001)	2206 HP	Low sulfur fuel	0.0016 LB/H	BACT-PSD
LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	11/07/2017	6/19/2019	Emergency Diesel Fire Pump Engine (P002)	700 HP	Low sulfur fuel	5.4 X10-4 LB/H	BACT-PSD
GUERNSEY POWER STATION LLC	10/23/2017	6/19/2019	Emergency Generators (2 identical, P004 and P005)	2206 HP	ultra-low sulfur diesel (ULSD) fuel with a sulfur content	3.4 X10-3 LB/H	BACT-PSD
					of less than 15 ppm (0.0015 percent by weight)		
OREGON ENERGY CENTER	09/27/2017	6/19/2019	Emergency generator (P003)	1529 HP	Ultra low sulfur diesel fuel	3.3 X10-4 LB/H	BACT-PSD
TRUMBULL ENERGY CENTER	09/07/2017	6/19/2019	Emergency generator (P003)	1529 HP	Ultra low sulfur diesel fuel	3.3 X10-4 LB/H	BACT-PSD
SOUTH FIELD ENERGY LLC	09/23/2016	6/19/2019	Emergency generator (P003)	2947 HP	Ultra low sulfur diesel fuel	6.4 X10-4 LB/H	BACT-PSD
CLEAN ENERGY FUTURE - LORDSTOWN, LLC	08/25/2015	6/19/2019	Emergency generator (P003)	2346 HP	Low sulfur fuel	5.1 X10-4 LB/H	BACT-PSD
C4GT, LLC	04/26/2018	6/19/2019	Emergency Diesel GEN	500 H/YR	good combustion practices and the use of ultra low	0	BACT-PSD
					sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur		
					content of 15 ppmw.		
GREENSVILLE POWER STATION	06/17/2016	6/19/2019	DIESEL-FIRED EMERGENCY GENERATOR 3000 kW (1)	0	Ultra Low Sulfur Diesel/Fuel (15 ppm max)	0.0001 LB/MMBTU	N/A
NTE OHIO, LLC	11/05/2014	4/1/2019	Emergency generator (P002)	1100 KW	Emergency operation only, < 500 hours/year each for	2.19 X10-3 LB/H	BACT-PSD
					maintenance checks and readiness testing designed to		
					meet NSPS Subpart IIII		
CARROLL COUNTY ENERGY	11/05/2013	4/1/2019	Emergency generator (P003)	1112 KW	Ultra low sulfur diesel fuel with 15 ppm maximum sulfur	3.23 X10-4 LB/H	BACT-PSD
					content		
BELLE RIVER COMBINED CYCLE POWER PLANT	07/16/2018	2/19/2019	EUEMENGINE: Emergency engine	2 MW	Good combustion practices, low sulfur fuel.	15 PPM	BACT-PSD
	09/01/2015			0			BACT-PSD
			2000 kW Emergency Generator	•			BACT-PSD
CPV VALLEY ENERGY CENTER	08/01/2013	9/28/2017	Emergency generator	0	Ultra low sulfur diesel with maximum sulfur content	3 E-5 LB/MMBTU	BACT-PSD
SALEM HARBOR STATION REDEVELOPMENT	01/30/2014	5/5/2016	Emergency Engine/Generator	7.4 MMBTU/H	0.0015 percent.	0.0009 LB/H	BACT-PSD
	LINCOLN LAND ENERGY CENTER NEMADJI TRAIL ENERGY CENTER MIT CENTRAL UTILITY PLANT CHICKAHOMINY POWER LLC WILDCAT POINT GENERATION FACILITY HARRISON POWER LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER GUERNSEY POWER STATION LLC OREGON ENERGY CENTER SOUTH FIELD ENERGY LLC CLEAN ENERGY FUTURE - LORDSTOWN, LLC CAGT, LLC GREENSVILLE POWER STATION NTE OHIO, LLC CARROLL COUNTY ENERGY BELLE RIVER COMBINED CYCLE POWER PLANT MOXIE FREEDOM GENERATION PLANT LACKAWANNA ENERGY CENTER	LINCOLN LAND ENERGY CENTER 07/29/2022 NEMADJI TRAIL ENERGY CENTER 09/01/2020 MIT CENTRAL UTILITY PLANT 06/21/2017 CHICKAHOMINY POWER LLC 06/24/2019 WILDCAT POINT GENERATION FACILITY 04/08/2014 HARRISON POWER 04/19/2018 LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER 11/07/2017 GUERNSEY POWER STATION LLC - MANNIBAL POWER 11/07/2017 GUERNSEY POWER STATION LLC - MANNIBAL POWER 09/27/2017 GUERNSEY POWER STATION LLC - MANNIBAL POWER 09/27/2017 GUERNSEY POWER STATION LLC 09/23/2016 GREEON ENERGY CENTER 09/27/2015 GOVEGON ENERGY LLC 09/23/2016 GREENSVILLE POWER STATION 06/17/2016 NTE OHIO, LLC 11/05/2013 BELLE RIVER COMBINED CYCLE POWER PLANT 07/16/2018 BELLE RIVER COMBINED CYCLE POWER PLANT 07/16/2018 BELLE RIVER COMBINED CYCLE POWER PLANT 07/16/2018 LACKAWANNA ENERGY CENTER 09/01/2015 LACKAWANNA ENERGY CENTER 09/01/2015	LINCOLN LAND ENERGY CENTER         07/29/2022         12/6/2022           NEMADJI TRAIL ENERGY CENTER         09/01/2020         9/16/2022           MIT CENTRAL UTILITY PLANT         06/21/2017         8/9/2021           CHICKAHOMINY POWER LLC         06/24/2019         5/19/2021           WILDCAT POINT GENERATION FACILITY         04/08/2014         8/12/2020           HARRISON POWER         04/19/2018         6/19/2019           LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER         11/07/2017         6/19/2019           LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER         11/07/2017         6/19/2019           OREGON ENERGY CENTER         09/07/2017         6/19/2019           SOUTH FIELD ENERGY LLC         09/27/2017         6/19/2019           CARENERGY FUTURE - LORDSTOWN, LLC         09/25/2015         6/19/2019           GREENSVILLE POWER STATION         06/17/2016         6/19/2019           GREENSVILLE POWER STATION         06/17/2016         6/19/2019           GREENSVILLE POWER STATION         06/17/2016         6/19/2019           GARROLL COUNTY ENERGY         11/05/2013         4/1/2019           BELLE RIVER COMBINED CYCLE POWER PLANT         09/01/2013         12/12/2018           LACKAWANNA ENERGY CTR/DESUP         12/12/2018         12/21/2018	LINCOLN LAND ENERGY CENTER 07/29/2022 12/6/2022 Emergency Engines NEMADJI TRAIL ENERGY CENTER 09/01/2020 9/16/2022 Emergency Diesel Generator (P07) MIT CENTRAL UTILITY PLANT 06/21/2017 8/9/2021 Cold Start Engine Emergency Diesel Generator - 300 kW WILDCAT POINT GENERATION FACILITY 04/08/2014 8/12/2020 EMERGENCY GENERATOR 1 HARRISON POWER 04/19/2018 6/19/2019 Emergency Diesel Generator (P003) LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER 11/07/2017 6/19/2019 Emergency Diesel Generator (P003) LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER 11/07/2017 6/19/2019 Emergency Diesel Generator (P003) GUERNSEY POWER STATION LLC - HANNIBAL POWER 11/07/2017 6/19/2019 Emergency Diesel Generator (P003) COREGON ENERGY CENTER 09/27/2017 6/19/2019 Emergency generator (P003) COREGON ENERGY CUTTER 09/27/2017 6/19/2019 Emergency generator (P003) CULCAN ENERGY FUTURE - LORDSTOWN, LLC 09/23/2016 6/19/2019 Emergency generator (P003) CLGAN ENERGY FUTURE - LORDSTOWN, LLC 09/23/2016 6/19/2019 Emergency generator (P003) GREENSVILLE POWER STATION  LLC 11/05/2014 4/1/2019 Emergency generator (P003) CAGT, LLC 00/17/2016 6/19/2019 Emergency generator (P003) CAGT, LLC 01/17/2016 6/19/2019 Emergency generator (P003) CARRIDL EVERGY FUTURE - LORDSTOWN, LLC 08/25/2015 6/19/2019 Emergency generator (P003) CAGT, LLC 01/17/2016 6/19/2019 Emergency generator (P003) CARRIDL EVERGY FUTURE - LORDSTOWN, LLC 04/26/2018 6/19/2019 Emergency generator (P003) CARRIDL COUNTY ENERGY 11/05/2014 4/1/2019 Emergency generator (P003) CARRIDL EVERGY FUTURE - LORDSTOWN, LLC 04/26/2018 6/19/2019 Emergency generator (P003) CARRIDL EVERGY CENTER 09/27/2017 6/19/2019 Emergency generator (P003) CARRIDL EVERGY CONTER 09/01/2013 12/19/2019 Emergency generator (P003) CARRIDL EVERGY CENTER 09/01/2013 12/19/2019 Emergency generator (P003) CARRIDL COUNTY ENERGY 11/05/2014 4/1/2019 Emergency generator (P003) ERLE ENVER COMBINED CYCLE POWER PLANT 09/01/2018 12/19/2019 Emergency generator (P003) ERLE ENVERCY GENERATION PLANT 09/01/2018 12/19/2019 Emergency Generator (P003) ER	LINCO IN LAND ENERGY CENTER         07/29/2022         12/6/2022         Emergency Engines         1250 kW           NEMADJI TRAIL ENERGY CENTER         09/01/2020         9/16/2022         Emergency Diesel Generator (P07)         1490 HP           MIT CENTRAL UTILITY PLANT         06/21/2017         8/9/2021         Cold Start Engine         19.04 MMBTU/HR           MIT CENTRAL UTILITY PLANT         06/21/2017         8/9/2021         Cold Start Engine         19.04 MMBTU/HR           MIT CENTRAL UTILITY PLANT         06/21/2017         8/12/2020         EMERGENCY GENERATOR 1         2250 kW           VILDCAT POINT GENERATION FACILITY         04/08/2014         8/12/2020         EMERGENCY GENERATOR 1         2250 kW           LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER         11/07/2017         6/19/2019         Emergency Diesel Generator Engine (P003)         1260 HP           LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER         11/07/2017         6/19/2019         Emergency Generator (P003)         2206 HP           OREGON ENERGY CENTER         09/27/2017         6/19/2019         Emergency Generator (P003)         1529 HP           OREGON ENERGY CENTER         09/27/2017         6/19/2019         Emergency Generator (P003)         1529 HP           CLAN ENERGY FUTURE - LORDSTOWN, LLC         09/27/2017         6/19/2019         Emergency	LINCOLN LAND ENERGY CENTER07/92/202212/67/022Fund regimes120 NWUse of lates low suffar direct, with a suffar context < 15 pmNEMADI ITALL ENERGY CENTER09/01/20209/15/2022fund generator (PO7)1490 HPOperation limited to 500 hour/yeer, suffar direct, with a suffar context < 15 pm	LINECODE LARGE CENTER07/29/2022 $1/26/2022$ Energency Engines120 kmUse of Unra-Jov suffor diest, with a suffir content < 150NEMADI TAAL ENERGY CENTER09/01/2020 $1/16/2022$ Energency Diesi Generator (P07)1400 HPDiperational initiate to 500 hours/yee, suffir content < 15

# Table C-21. RBLC NO<sub>X</sub> Summary for External Combustion Devices <100 MMBtu/hr, Natural Gas-Fired

			Date Last		Control Mathe d Description		
BLCID	Facility Name	Issuance Date	- + · · · · · · · · · · · · · · · · · ·	Throughput	Control Method Description	Emission Limit	BASIS
1-0359	NUCOR STEEL	03/30/2023	5/23/2023 Boiler (CC-BOIL)	50 MMBtu/hr	low NOx burners	0.035 LB/MMBTU	BACT-PSI
-0359	NUCOR STEEL	03/30/2023	5/23/2023 Hot Water Circuit Burner for Galvanizing Line	9 MMBtu/hr	low NOx burners, good combustion practices, use of pipe	50 LB/MMSCF	BACT-PSI
-0359	NUCOR STEEL	03/30/2023	5/23/2023 Hot Water Circuit Burner for Sheet Metal Coating Line	5.12 MMBtu/hr	low NOx burners, good combustion practices and only pi	50 LB/MMSCF	BACT-PSI
-0955	INEOS OLIGOMERS CHOCOLATE BAYOU	03/14/2023	4/12/2023 HOT OIL HEATER	0	Burner design for good combustion efficiency and to min	0.014 LB/MMBTU	LAER
-0955	INEOS OLIGOMERS CHOCOLATE BAYOU	03/14/2023	4/12/2023 HEATER NO 2	0	Burner design for good combustion efficiency and to min	0.01 LB/MMBTU	LAER
-0391	MAGNOLIA POWER GENERATING STATION UNIT 1	06/03/2022	5/23/2023 Auxiliary Boiler	80 mm BTU/h	Ultra-low NOx burners and good combustion practices.	0.01 LB/MM BTU	BACT-PS
0116	NOVELIS CORPORATION - GUTHRIE	07/25/2022	4/25/2023 EU 037 - Sow Dryer	20 MMBtu/hr	Good Combustion & Operation Practices (GCOP) Plan, Lo	1.08 LB/HR	BACT-P
0116	NOVELIS CORPORATION - GUTHRIE	07/25/2022	4/25/2023 EU 041a - Direct-Fired Building Heating Systems	53 MMBtu/hr (total)	Good Combustion & Operation Practices (GCOP) Plan	5.3 LB/HR	BACT-P
-0116	NOVELIS CORPORATION - GUTHRIE	07/25/2022	4/25/2023 EU 041b - Indirect-Fired Building Heating Systems ≤ 1 MMB	3 MMBtu/hr (total)	Good Combustion & Operation Practices (GCOP) Plan	0.3 LB/HR	BACT-P
-0116	NOVELIS CORPORATION - GUTHRIE	07/25/2022	4/25/2023 EU 041c - Indirect-Fired Building Heating Systems > 1 MMBt	19.2 MMBtu/hr (total)	Good Combustion & Operation Practices (GCOP) Plan	1.92 LB/HR	BACT-F
-0454	LBWL-ERICKSON STATION	12/20/2022	5/23/2023 EUAUXBOILERnatural-gas fired auxiliary boiler, rated at less th	50 MMBTU/H	Low NOx Burners (LNB) or Flue Gas Recirculation (FGR) al	30 PPM	BACT-F
-0387	INTEL OHIO SITE	09/20/2022	4/25/2023 45.6 MMBtu/hr Natural Gas-Fired Nitrogen Vaporizers: B029 th	45.6 MMBTU/H	Ultra-low NOX burners, good combustion practices, and	2.59 T/YR	BACT-F
-0387	INTEL OHIO SITE	09/20/2022	4/25/2023 29.4 MMBtu/hr Natural Gas-Fired Boilers: B001 through B028	29.4 MMBTU/H	Ultra-low NOX burners, good combustion practices, and	9.74 T/YR	BACT-I
-0452	MEC SOUTH, LLC	06/23/2022	4/25/2023 EUAUXBOILER (South Plant): Auxiliary Boiler	61.5 MMBTU/H	Low NOx Burners/Flue Gas Recirculation and Good Comb	0.04 LB/MMBTU	BACT-F
-0451	MEC NORTH, LLC	06/23/2022	4/25/2023 EUAUXBOILER (North Plant): Auxiliary Boiler	61.5 MMBTU/H	Low NOx burners/Flue gas recirculation and good combu	0.04 LB/MMBTU	BACT-F
0133	LINCOLN LAND ENERGY CENTER	07/29/2022	12/6/2022 Auxiliary Boiler	80 mmBtu/hour	Ultra low-NOx burners and flue gas recirculation, air pref	0.01 POUNDS/MMBTU	BACT-F
-0306	WPL- RIVERSIDE ENERGY CENTER	02/28/2020	9/16/2022 Temporary Boiler (B98A)	14.67 MMBTU/H	Low NOx burners, flue gas recirculation, shall be operate	0.04 LB/MMBTU	BACT-F
-0300	NEMADJI TRAIL ENERGY CENTER	09/01/2020	9/16/2022 Natural Gas-Fired Auxiliary Boiler (B02)	100 MMBTU/H	Ultra-low NOx burners, flue gas recirculation, and operat	0.011 LB/MMBTU	BACT-F
-0173	BIG RIVER STEEL LLC	01/31/2022	3/4/2022 Hydrogen Plant #2 Reformer Furnace	75 MMBtu/hr	Low NOx burnersCombustion of clean fuelGood Combust	0.1 LB/MMBTU	BACT-F
-0173	BIG RIVER STEEL LLC	01/31/2022	3/4/2022 Pickle Line Boiler	53.7 MMBtu/hr	Low NOx burnersCombustion of clean fuelGood Combust	0.035 LB/MMBTU	BACT-F
-0173	BIG RIVER STEEL LLC	01/31/2022	3/4/2022 Galvanizing Line Boilers #1 and #2	53.7 MMBtu/hr	Low NOx burnersCombustion of clean fuelGood Combust	0.035 LB/MMBTU	BACT-I
-0173	BIG RIVER STEEL LLC	01/31/2022	3/4/2022 Pickle Galvanizing Line Boiler	53.7 MMBtu/hr	Low NOx burnersCombustion of clean fuelGood Combust	0.035 LB/MMBTU	BACT-I
-0175	GRAYLING PARTICLEBOARD	12/18/2020	8/16/2022 Thermal oil heater (EUTOH in FGTOH)	38 MMBTU/H		0.05 LB/MMBTU	BACT-F
-0448 -0448					Good design and combustion practices, low NOx burners		
0110	GRAYLING PARTICLEBOARD	12/18/2020	8/16/2022 Thermal oil system for thermally fused lamination lines (EUFLT)	10.2 MMBTU/H	Good design and combustion practices, low NOx burners	0.05 LB/MMBTU	BACT-I
-0371	SHADY HILLS COMBINED CYCLE FACILITY	06/07/2021	3/4/2022 60 MMBtu/hour Auxiliary Boiler	60 MMBtu/hour	Low-NOx burners	0.05 LB/MMBTU	BACT-I
-0328	PLANT BARRY	11/09/2020	3/4/2022 90.5 MMBtu/hr Aux Boiler	90.5 MMBtu/hr		0.011 LB/MMBTU	BACT-F
-0329	COLBERT COMBUSTION TURBINE PLANT	09/21/2021	3/4/2022 Three Gas Heaters	10 MMBtu/hr		0.011 LB/MMBTU	BACT-F
-0172	NUCOR STEEL ARKANSAS	09/01/2021	3/4/2022 SN-202, 203, 204 Pickle Line Boilers	0	Low NOx burners	0.035 LB/MMBTU	BACT-F
-0377	TOKAI ADDIS FACILITY	05/27/2020	9/10/2021 1-19 Burner 1	12 MW	Low NOx Burners and good combustion practices.	0.08 LB/MMBTU	BACT-F
-0171	NUCOR STEEL ARKANSAS	02/14/2019	9/10/2021 SN-142 Vacuum Degasser Boiler	50.4 MMBTU/hr	Low Nox Burners	0.035 LB/MMBTU	BACT-F
-0171	NUCOR STEEL ARKANSAS	02/14/2019	9/10/2021 SN-233 Galvanizing Line Boilers	15 MMBTU/hr each	Low Nox Burners	0.1 LB/MMBTU	BACT-F
-0447	LBWLERICKSON STATION	01/07/2021	9/10/2021 EUAUXBOILERnat gas fired auxiliary boiler	50 MMBTU/H	Low NOx burners (LNB) or flue gas recirculation (FGR) alc	30 PPM	BACT-F
-0168	BIG RIVER STEEL LLC	03/17/2021	5/26/2021 Galvanizing Line #2 Furnace	150.5 MMBtu/hr	SCR. Low NOx burnersCombustion of clean fuelGood Con	0.035 LB/MMBTU	BACT-F
-0168	BIG RIVER STEEL LLC	03/17/2021	5/26/2021 Decarburizing Line Furnace Section	58 MMBtu/hr	Low NOx burnersSCRCombustion of clean fuelGood Com	0.1 LB/MMBTU	BACT-F
-0324	MIDWEST FERTILIZER COMPANY LLC	05/06/2022	8/16/2022 startup heater EU-002	33.34 MMBtu/hr	shall combust natural gas, shall be controlled by good co	200 HB/YB	BACT-P
-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Cold Mill Complex Makeup Air Units (EP 21-19)	40 MMBtu/hr, total	The permittee must develop a Good Combustion and Op	100 LB/MMSCF	BACT-F
-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Cold Will Complex Marcul Air Onits (EF 21-15) 5/26/2021 Vacuum Degasser Boiler (EP 20-13)	50.4 MMBtu/hr	The permittee must develop a Good Combustion and Op	35 LB/MMSCF	BACT-F
-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Pickle Line #2 â€" Boiler #1 & #2 (EP 21-04 & EP 21-0	18 MMBtu/hr, each	The permittee must develop a Good Combustion and Op	50 LB/MMSCF	BACT-F
-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Alkali Cleaning Section Heater (EP 21-07B)	23 MMBtu/hr	The permittee must develop a Good Combustion and Op	50 LB/MMSCF	BACT-F
-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Radiant Tube Furnace (EP 21-08B)	36 MMBtu/hr	The permittee must develop a Good Combustion and Op	7.5 LB/MMSCF	BACT-P
-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Annealing Furnaces (15) (EP 21-15)	4.8 MMBtu/hr, each	The permittee must develop a Good Combustion and Op	50 LB/MMSCF	BACT-P
-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Preheat Furnace (EP 21-08A)	94 MMBtu/hr	The permittee must develop a Good Combustion and Op	7.5 LB/MMSCF	BACT-F
-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Zinc Pot Preheater (EP 21-09)	3 MMBtu/hr	The permittee must develop a Good Combustion and Op	70 LB/MMSCF	BACT-P
-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Heated Transfer Table Furnace (EP 02-03)	65.5 MMBtu/hr	The permittee must develop a Good Combustion and Op	70 LB/MMSCF	BACT-P
-0167	LION OIL COMPANY	12/01/2020	5/26/2021 SN-803 - #4 Pre-Flash Column Reboiler	40 MMBtu/hr	Ultra-low NOx burners and good combustion practice	1.9 LB/HR	BACT-F
-0167	LION OIL COMPANY	12/01/2020	5/26/2021 SN-805 - #4 Pre-Flash Reboiler	75 MMBtu/hr	Ultra-low NOx burners and good combustion practice	3.5 LB/HR	BACT-F
-0167	LION OIL COMPANY	12/01/2020	5/26/2021 SN-808 - #7 FCCU Furnace	56 MMBtu/hr	Good combustion practice	2.8 LB/HR	BACT-F
-0167	LION OIL COMPANY	12/01/2020	5/26/2021 SN-810 - #9 Hydrotreater Furnace/Reboiler	70 MMBtu/hr	·	12.7 LB/HR	BACT-F
-0167	LION OIL COMPANY	12/01/2020	5/26/2021 SN-842 - #12 Unit Distillate Hydrotreater	50 MMBtu/hr	Good combustion practice	5.3 LB/HR	BACT-F
11-0445	INDECK NILES, LLC	11/26/2019	12/23/2020 FGFUELHTR (2 fuel pre-heaters)	27 MMBTU/H	Good combustion practices	1.32 LB/H	BACT-F
-0085	GAS TREATMENT PLANT	08/13/2020	8/16/2022 Two (2) Buyback Gas Bath Heaters and Three (3) Operations Ca	32 MMBtu/hr	Low NOx Burners, Good Combustion Practices, Limited O	0.036 LB/MMBTU	BACT-F
-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 15-01 - Natural Gas Direct-Fired Space Heaters, Process Wat		Low-Nox Burner (Designed to maintain 0.07 lb/MMBtu);	70 LB/MMSCF	BACT-F
0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 05-01 - Group 1 Car Bottom Furnaces #1 - #3	28 MMBtu/hr, each	Low-Nox Burner (Designed to maintain 0.08 lb/MMBtu);	81.6 LB/MMSCF	BACT-I
0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 04-02 - Austenitizing Furnace	54 MMBtu/hr	Low-Nox Burner (Designed to maintain 0.15 lb/MMBtu ir	158 LB/MMSCF	BACT-
0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 05-02 - Group 2 Car Bottom Furnaces A & amp; B		Low-Nox Burner (Designed to maintain 0.08 lb/MMBtu);	81.6 LB/MMSCF	BACT-I
0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 03-02 - Ingot Car Bottom Furnaces #1-#4	37 MMBtu/hr, each	Low-Nox Burner (Designed to maintain 0.18 lb/MMBtu);	181.6 LB/MMSCF	BACT-
0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 03-05 - Steckel Mill Coiling Furnaces #1 & amp; #2	17.5 MMBtu/hr, each	Low-Nox Burner (Designed to maintain 0.08 lb/MMBtu);	81.6 LB/MMSCF	BACT-I
-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 04-03 - Tempering Furnace	48 MMBtu/hr	Low-Nox Burner (Designed to maintain 0.07 lb/MMBtu);	70 LB/MMSCF	BACT-I
0364	FG LA COMPLEX	01/06/2020	8/9/2021 Hot Oil Heaters 1 and 2	0	LNB	0.06 LB/MMBTU	BACT-I
0364	FG LA COMPLEX	01/06/2020	8/9/2021 PR Waste Heat Boiler	94 mm btu/h	SCR and LNB	14.41 LB/H	BACT-I
0349	DRIFTWOOD LNG FACILITY	07/10/2018	8/6/2021 Hot Oil Heaters (5)	16.13 mm btu/hr	ULNB and Good Combustion Practices	0	BACT-
-0888	ORANGE POLYETHYLENE PLANT	04/23/2020	11/12/2020 Heaters	100 MMBtu	Low NOx burners and good combustion practice.	0.04 LB/MMBTU	BACT-
H-0381	NORTHSTAR BLUESCOPE STEEL, LLC	09/27/2019	8/9/2021 Tunnel Furnace #2 (P018)	88 MMBTU/H	Use of natural gas, use of low NOx burners, good combus	6.16 LB/H	BACT-I
-0442	THOMAS TOWNSHIP ENERGY, LLC	09/2//2019	8/9/2021 FGAUXBOILER	80 MMBTU/H		0.036 LB/MMBTU	BACT-
					Good combustion practices and low NOx burners.		
-0442	THOMAS TOWNSHIP ENERGY, LLC	08/21/2019	8/9/2021 FGPREHEAT	7 MMBTU/H	Good combustion practices and low NOx burners	0.036 LB/MMBTU	BACT-I
-0441	LBWLERICKSON STATION	12/21/2018	8/9/2021 EUAUXBOILERnatural gas fired auxiliary boiler rated at <= 9	99 MMBTU/H	Low NOx burners (LNB) or flue gas recirculation along wit	30 PPM	BACT-I
I-0440	MICHIGAN STATE UNIVERSITY	05/22/2019	8/9/2021 FGFUELHEATERS	25 MMBTU/H	Low NOx burners and good combustion practices.	0.05 LB/MMBTU	BACT-F
I-0291	GRAYMONT WESTERN LIME-EDEN	01/28/2019	3/8/2022 P05 Natural Gas Fired Line Heater	1.5 mmBTU/hr	Good Combustion Practices	0.1 LB/MMBTU	BACT-I
1-0284	SIO INTERNATIONAL WISCONSIN, INCENERGY PLANT	04/24/2018	3/8/2022 B13-B24 & amp; B25-B36 Natural Gas-Fired Boilers	28 mmBTU	Ultra-Low NOx Burners, Flue Gas Recirculation, and Gooc	0.0105 LB/MMBTU	BACT-

# Table C-21. RBLC NO<sub>X</sub> Summary for External Combustion Devices <100 MMBtu/hr, Natural Gas-Fired

		Permit	Date Last				
BLCID	Facility Name	Issuance Date	• • • • • •	Throughput	Control Method Description	Emission Limit	BASIS
VI-0283	AFE, INC. –LCM PLANT	04/24/2018	3/8/2022 B01-B12, Boilers	28 mmBTU/hr	Ultra-low NOx Burners, Flue Gas Recirculation and Good	0.0105 LB/MMBTU	BACT-PSD
-0130	JACKSON ENERGY CENTER	12/31/2018	4/16/2020 Auxiliary Boiler	96 mmBtu/hr	Ultra low-NOx burners and flue gas recirculation air preh	0.01 LB/MMBTU	LAER
R-0159	BIG RIVER STEEL LLC	04/05/2019	11/10/2020 BOILER, PICKLE LINE	0	LOW NOX BURNERS COMBUSTION OF CLEAN FUEL GOOD	0.035 LB/MMBTU	BACT-PSD
R-0159	BIG RIVER STEEL LLC	04/05/2019	11/10/2020 PREHEATERS, GALVANIZING LINE SN-28 and SN-29	0	SCR, LOW NOX BURNERS, AND COMBUSTION OF CLEAN F	0.035 LB/MMBTU	BACT-PSD
R-0159	BIG RIVER STEEL LLC	04/05/2019	11/10/2020 BOILER, ANNEALING PICKLE LINE	0	Low NOx burners, Combustion of clean fuel, and Good Co	0.035 LB/MMBTU	BACT-PSD
R-0159	BIG RIVER STEEL LLC	04/05/2019	11/10/2020 BOILERS SN-26 AND SN-27, GALVANIZING LINE	0	LOW NOX BURNERS COMBUSTION OF CLEAN FUEL GOOD	0.035 LB/MMBTU	BACT-PSD
H-0379	PETMIN USA INCORPORATED	02/06/2019	6/19/2019 Startup boiler (B001)	15.17 MMBTU/H	Low-NOX burners, good combustion practices and the us	0.634 LB/H	BACT-PSD
H-0379	PETMIN USA INCORPORATED	02/06/2019	6/19/2019 Ladle Preheaters (P002, P003 and P004)	15 MMBTU/H	Good combustion practices and the use of natural gas	2.12 LB/H	BACT-PSD
PA-0319		08/27/2018	10/11/2019 Latter Fiendates (F002, F003 and F004)	88 MMBtu/hr	Lo-NOx burners, Flue Gas Recirculation, good combustion	0.02 LB/MMBTU	LAER
DH-0377	HARRISON POWER	04/19/2018	6/19/2019 National Gas Fired Advillant Boiler	44.55 MMBTU/H	Good combustion practices and low NOx burner	1.56 LB/H	BACT-PSD
DH-0377	HARRISON POWER	04/19/2018	6/19/2019 Auxiliary Boiler (B002)	80 MMBTU/H	Good combustion practices and low NOx burner	2.19 LB/H	BACT-PSD
L-0367	SHADY HILLS COMBINED CYCLE FACILITY	07/27/2018	3/4/2022 60 MMBtu/hour Auxiliary Boiler	60 MMBtu/hour	low-NOx burners	0.05 LB/MMBTU	BACT-PSD
DH-0375	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	11/07/2017	6/19/2019 Auxiliary Boiler (B001)	26.8 MMBTU/H	Flue gas recirculation and low NOX burner	0.29 LB/H	BACT-PSD
DH-0374	GUERNSEY POWER STATION LLC	10/23/2017	6/19/2019 Fuel Gas Heaters (2 identical, P007 and P008)	15 MMBTU/H	Low-NOx gas burner	0.3 LB/H	BACT-PSD
H-0372	OREGON ENERGY CENTER	09/27/2017	6/19/2019 Auxiliary Boiler (B001)	37.8 MMBTU/H	low NOX burners and flue gas recirculation	0.76 LB/H	BACT-PSD
H-0370	TRUMBULL ENERGY CENTER	09/07/2017	6/19/2019 Auxiliary Boiler (B001)	37.8 MMBTU/H	Flue gas recirculation (FGR), low NOx burner	0.76 LB/H	BACT-PSD
H-0368	PALLAS NITROGEN LLC	04/19/2017	6/19/2019 Startup Heater (B001)	100 MMBTU/H	Good combustion control (i.e., high temperatures, suffici	10 LB/H	BACT-PSD
DH-0367	SOUTH FIELD ENERGY LLC	09/23/2016	6/19/2019 Auxiliary Boiler (B001)	99 MMBTU/H	Flue gas recirculation (FGR), low NOx burner, and natural	9.9 LB/H	BACT-PSD
0H-0366	CLEAN ENERGY FUTURE - LORDSTOWN, LLC	08/25/2015	6/19/2019 Auxiliary Boiler (B001)	34 MMBTU/H	Flue gas recirculation (FGR) and low NOx burner	0.68 LB/H	BACT-PSD
X-0851	RIO BRAVO PIPELINE FACILITY	12/17/2018	2/19/2019 Thermal Oxidizer	71.3 MMBTU/HR	Low NOx burners and good combustion practices.	0.162 LB/MMBTU	BACT-PSD
X-0845	ARKEMA BEAUMONT PLANT	08/24/2018	2/19/2019 HEATERS	31 BTU/HR	LOW NOX BURNERS, CLEAN FUEL	0.04 LB/MMBTU	BACT-PSD
PA-0316		01/26/2018	3/26/2019 Auxiliary Boiler		eri ''ultra-low NOx burners and flue gas re-ciri	0.04 LB/MINBTO	LAER
L-0129	CPV THREE RIVERS ENERGY CENTER			96 mmBtu/hr		0.011 LB 0.011 LB/MMBTU	LAER
		07/30/2018	2/19/2019 Auxiliary Boiler		Ultra-low NOx burners and flue gas recirculation, air prei		
	BROOKE COUNTY POWER PLANT	09/18/2018	6/28/2022 Auxiliary Boiler	111.9 mmBtu/hr	LNB, Good Combustion Practices	1.23 LB/HR	BACT-PSD
R-0155	BIG RIVER STEEL LLC	11/07/2018	6/19/2019 BOILER, PICKLE LINE	53.7 MMBTU/HR	LOW NOX BURNERS COMBUSTION OF CLEAN FUEL GOOD	0.035 LB/MMBTU	BACT-PSD
R-0155	BIG RIVER STEEL LLC	11/07/2018	6/19/2019 BOILER SN-26, GALVANIZING LINE	53.7 MMBTU/HR	LOW NOX BURNERS COMBUSTION OF CLEAN FUEL GOOD	0.035 LB/MMBTU	BACT-PSD
AR-0155	BIG RIVER STEEL LLC	11/07/2018	6/19/2019 PREHEATER, GALVANIZING LINE SN-28	78.2 MMBTU/HR	SCR, LOW NOX BURNERS, AND COMBUSTION OF CLEAN F	0.035 LB/MMBTU	BACT-PSD
/I-0435	BELLE RIVER COMBINED CYCLE POWER PLANT	07/16/2018	2/19/2019 EUAUXBOILER: Auxiliary Boiler	99.9 MMBTU/H	Low NOx burners/Flue gas recirculation.	0.036 LB/MMBTU	BACT-PSD
11-0435	BELLE RIVER COMBINED CYCLE POWER PLANT	07/16/2018	2/19/2019 EUFUELHTR1: Natural gas fired fuel heater	20.8 MMBTU/H	Low NOx burner	0.75 LB/H	BACT-PSD
/1-0435	BELLE RIVER COMBINED CYCLE POWER PLANT	07/16/2018	2/19/2019 EUFUELHTR2: Natural gas fired fuel heater	3.8 MMBTU/H	Low NOx burner	0.14 LB/H	BACT-PSD
/II-0433	MEC NORTH, LLC AND MEC SOUTH LLC	06/29/2018	2/19/2019 EUAUXBOILER (North Plant): Auxiliary Boilder	61.5 MMBTU/H	Low NOx burners/flue gas recirculation and good combu	0.04 LB/MMBTU	BACT-PSD
/1-0433	MEC NORTH, LLC AND MEC SOUTH LLC	06/29/2018	2/19/2019 EUAUXBOILER (South Plant): Auxiliary Boiler	61.5 MMBTU/h	Low NOx burners/flue gas recirculation and good combu	0.04 LB/MMBTU	BACT-PSD
WV-0029		03/27/2018	6/28/2022 Auxiliary Boiler	77.8 mmBtu/hr	LNB, FGR, Good Combustion Practices	0.86 LB/HR	BACT-PSD
N-0285	WHITING CLEAN ENERGY, INC.	08/02/2017	6/15/2018 Space Heaters	0	END, FOR, GOOD COMPOSITION FRACTICES	0.05 LB/MMBTU	BACT-PSD BACT-PSD
L-0263	DANIA BEACH ENERGY CENTER	12/04/2017		9.9 MMBtu/hr	Manufacturer certification	0.1 LB/MMBTU	BACT-PSD BACT-PSD
·L-0363 4I-0426			3/4/2022 Two natural gas heaters			20 PPM AT 3% 02	BACT-PSD BACT-PSD
	DTE GAS COMPANY - MILFORD COMPRESSOR STATION	03/24/2017	3/8/2018 FGAUXBOILERS (6 auxiliary boilers EUAUXBOIL2A, EUAUXBOIL3	3 MMBTU/H	Ultra-low NOx burners and good combustion practices.		
IY-0104	CPV VALLEY ENERGY CENTER	08/01/2013	9/28/2017 Auxiliary boiler	0	Flue gas recirculation with low NOx burners.	0.045 LB/MMBTU	LAER
VY-0103	CRICKET VALLEY ENERGY CENTER	02/03/2016	9/28/2017 Auxiliary boiler	60 MMBTU/H	flue gas recirculation with low NOx burners	0.0085 LB/MMBTU	LAER
VII-0425	GRAYLING PARTICLEBOARD	05/09/2017	11/15/2017 EUTOH in FGTOH	38 MMBTU/H	Good design and combustion practices, Low NOx burners	0.05 LB/MMBTU	BACT-PSD
vii-0425	GRAYLING PARTICLEBOARD	05/09/2017	11/15/2017 EUFLTOS1 in FGTOH	10.2 MMBTU/H	Good design and combustion practices, low NOx burners	0.05 LB/MMBTU	BACT-PSD
A-0311	MOXIE FREEDOM GENERATION PLANT	09/01/2015	12/21/2018 Auxilary Boiler	55.4 MMBtu/hr		0.006 LB/MMBTU	LAER
11-0424	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	12/05/2016	3/8/2018 EUFUELHTR (Fuel pre-heater)	3.7 MMBTU/H	Good combustion practices.	0.55 LB/H	BACT-PSD
/11-0424	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	12/05/2016	3/8/2018 EUAUXBOILER (Auxiliary boiler)	83.5 MMBTU/H	Low NOx burners/Internal flue gas recirculation and good	0.05 LB/MMBTU	BACT-PSD
PA-0309	LACKAWANNA ENERGY CTR/JESSUP	12/23/2015	12/21/2018 Auxillary Boiler	13.31 MMBtu/hr	SCR and ultra low NOx burners, Fired only on natural gas	0.006 LB/MMBTU	LAER
PA-0310	CPV FAIRVIEW ENERGY CENTER	09/02/2016	12/21/2018 Auxilary boiler	92.4 MMBtu/hr	Ultra low NOx burners, FGR, good combustion practices	0.011 LB/MMBTU	LAER
N-0263	MIDWEST FERTILIZER COMPANY LLC	03/23/2010	8/22/2017 STARTUP HEATER EU-002	70 MMBTU/HR	GOOD COMBUSTION PRACTICES		BACT-PSD
A-0205						12.611 LB/H	LAFR
	YORK ENERGY CENTER BLOCK 2 ELECTRICITY GENERATION PRO		12/21/2018 Auxilary Boiler	62.04 MCF/hr	Good combustion practices, Ultra-Low NOx burners, FGR	0.0086 LB/MMBTU	
/11-0423	INDECK NILES, LLC	01/04/2017	3/8/2018 FGFUELHTR (Two fuel pre-heaters identified as EUFUELHTR1 &	27 MMBTU/H	Good combustion practices.	2.65 LB/H	BACT-PSD
S-0030	MID-KANSAS ELECTRIC COMPANY, LLC - RUBART STATION	03/31/2016	3/1/2023 Indirect fuel-gas heater	2 mmBTU/hr		0.2 LB/H	BACT-PSD
LA-0315	G2G PLANT	05/23/2014	4/5/2021 Reactor Charge Heater - 53B001	10.1 MMBTU/HR	Ultra-Low NOx Burners (ULNB)	0.4 LB/H	BACT-PSD
LA-0315	G2G PLANT	05/23/2014	4/5/2021 Regeneraton Heater - 51B001	61 MMBTU/HR	Ultra-Low NOx Burners (ULNB)	2.44 LB/H	BACT-PSD
LA-0315	G2G PLANT	05/23/2014	4/5/2021 Recycle Gas Heater - 51B002A	33 MMBTU/HR	Ultra-Low NOx Burners (ULNB)	1.3 LB/H	BACT-PSD
LA-0315	G2G PLANT	05/23/2014	4/5/2021 Recycle Gas Heater - 51B002B	33 MMBTU/HR	Ultra-Low NOx Burners (ULNB)	1.3 LB/H	BACT-PSD
		05/23/2014	4/5/2021 Recycle Gas Heater - 51B002C	33 MMBTU/HR	Ultra-Low NOx Burners (ULNB)	1.3 LB/H	BACT-PSD
		05/23/2014	4/5/2021 Recycle Gas Heater - 51B002D	33 MMBTU/HR	Ultra-Low NOx Burners (ULNB)	1.3 LB/H	BACT-PSD
LA-0315		05/23/2014	4/5/2021 Recycle Gas Heater - 51B002E	33 MMBTU/HR	Ultra-Low NOx Burners (ULNB)	1.3 LB/H	BACT-PSD
A-0307	MAGNOLIA ING FACILITY	03/21/2016	4/28/2017 Regenerative Heaters	7.37 mm btu/hr	good combustion practices	0	BACT-PSD
					0	-	
A-0305	LAKE CHARLES METHANOL FACILITY	06/30/2016	4/28/2017 Gasifier Start-up Preheat Burners	23 MM BTU/hr (each)	good engineering practices, good combustion technology	0	BACT-PSD
4-0305	LAKE CHARLES METHANOL FACILITY	06/30/2016	4/28/2017 WSA Preheat Burners	0	good engineering design and practices and use of clean fi	0	BACT-PSD
/II-0421	GRAYLING PARTICLEBOARD	08/26/2016	7/20/2017 EUFLTOS1 in FGTOH (Thermal Oil System for Thermally Fused Li	34 MMBTU/H	Low NOx burners and good design and combustion pract	0.05 LB/MMBTU	BACT-PSD
/II-0421	GRAYLING PARTICLEBOARD	08/26/2016	7/20/2017 EUTOH (In FGTOH)Thermal Oil Heater	34 MMBTU/H	Low NOx burners and good design and combustion pract	0.05 LB/MMBTU	BACT-PSD
R-0140	BIG RIVER STEEL LLC	09/18/2013	12/13/2016 BOILER, PICKLE LINE	67 MMBTU/H	LOW NOX BURNERSCOMBUSTION OF CLEAN FUELGOOD	0.035 LB/MMBTU	BACT-PSD
R-0140	BIG RIVER STEEL LLC	09/18/2013	12/13/2016 BOILERS SN-26 AND 27, GALVANIZING LINE	24.5 MMBTU/H	LOW NOX BURNERSCOMBUSTION OF CLEAN FUELGOOD	0.035 LB/MMBTU	BACT-PSD
R-0140	BIG RIVER STEEL LLC	09/18/2013	12/13/2016 FURNACES SN-40 AND SN-42, DECARBURIZING LINE	22 MMBTU/H	LOW NOX BURNERSSCRCOMBUSTION OF CLEAN FUELGO	0.1 LB/MMBTU	BACT-PSD
/1-0420	DTE GAS COMPANYMILFORD COMPRESSOR STATION	06/03/2016	4/28/2017 FGAUXBOILERS	6 MMBTU/H	Ultra low NOx burners and good combustion practices.	14 PPMVOL	BACT-PSD
IJ-0085	MIDDLESEX ENERGY CENTER, LLC	07/19/2016	11/3/2016 AUXILIARY BOILER	4000 H/YR	Low NOx burners and Flue Gas Recirculation (FGR) and u	0.975 LB/H	LAER
IJ-0084	PSEG FOSSIL LLC SEWAREN GENERATING STATION	03/10/2016	4/17/2018 Auxiliary Boiler firing natural gas	687 MMCFT/YR	low NOx burners and flue gas recirculation (FGR)	0.8 LB/H	LAER
			7/6/2016 Auxiliary Boiler, 99.8 MMBtu/hr	99.8 MMBtu/hr	Low-NOx burners	0.05 LB/MMBTU	BACT-PSD
L-0356	OKEECHOBEE CLEAN ENERGY CENTER OKEECHOBEE CLEAN ENERGY CENTER	03/09/2016 03/09/2016	7/6/2016 Auxiliary Boller, 99.8 MiNBtu/nr 7/6/2016 Two natural gas heaters	10 MMBtu/hr	Must have NOx emission design value less than 0.1 lb/MI	0.1 LB/MMBTU	BACT-PSD BACT-PSD

# Table C-21. RBLC NO<sub>X</sub> Summary for External Combustion Devices <100 MMBtu/hr, Natural Gas-Fired

		Permit	Date Last				
RBLCID	Facility Name	Issuance Date	Updated Process Name	Throughput	Control Method Description	Emission Limit	BASIS
AL-0307	ALLOYS PLANT	10/09/2015	11/30/2017 PACKAGE BOILER	17.5 MMBTU/H	LOW NOX BURNERFLUE GAS RECIRCULATIONGCP	30 PPMVD	BACT-PSD
AL-0307	ALLOYS PLANT	10/09/2015	11/30/2017 2 CALP LINE BOILERS	24.59 MMBTU/H	LOW NOX BURNERFLUE GAS RECIRCULATION (FGR)GOOD	30 PPMVD	BACT-PSD
OK-0173	CMC STEEL OKLAHOMA	01/19/2016	7/7/2016 Heaters (Gas-Fired)	0	Natural Gas Fuel	0.1 LB/MMBTU	BACT-PSD
OH-0360	CARROLL COUNTY ENERGY	11/05/2013	4/1/2019 Auxiliary Boiler (B001)	99 MMBtu/H	low NOx burners and flue gas recirculation	1.98 LB/H	BACT-PSD
MD-0046	KEYS ENERGY CENTER	10/31/2014	5/13/2016 AUXILIARY BOILER	93 MMBTU/H	EFFICIENT BOILER DESIGN WITH ULTRA LOW NOX BURNE	0.01 LB/MMBTU	BACT-PSD
MD-0045	MATTAWOMAN ENERGY CENTER	11/13/2015	5/13/2016 AUXILIARY BOILER	42 MMBTU/H	EXCLUSIVE USE OF PIPELINE QUALITY NATURAL GAS, ULT	0.01 LB/MMBTU	BACT-PSD
CT-0159	CPV TOWANTIC, LLC	11/30/2015	2/19/2016 Aux Boiler	359.6 MMCF	Boiler permit does not specify any add-on control other t	7 PPMVD @3% O2	LAER
TX-0772	PORT OF BEAUMONT PETROLEUM TRANSLOAD TERMINAL	(PBP 11/06/2015	7/6/2016 Commercial/Institutional-Size Boilers/Furnaces	40 MMBTU/H	Low NOx burners	0.036 LB/MMBTU	BACT-PSD
TX-0772	PORT OF BEAUMONT PETROLEUM TRANSLOAD TERMINAL	(PBP 11/06/2015	7/6/2016 Commercial/Institutional-Size Boilers/Furnaces	95.7 MMBTU/H	Low NOx burners and flue gas recirculation	0.011 LB/MMBTU	BACT-PSD
TX-0772	PORT OF BEAUMONT PETROLEUM TRANSLOAD TERMINAL	(PBP11/06/2015	7/6/2016 Commercial/Institutional-Size Boilers/Furnaces	13.2 MMBTU/H		0.1 LB/MMBTU	BACT-PSD
MD-0042	WILDCAT POINT GENERATION FACILITY	04/08/2014	8/12/2020 AUXILLARY BOILER	45 MMBTU/H	EXCLUSIVE USE OF PIPELINE QUALITY NATURAL GAS AND	0.01 LB/MMBTU	LAER
MD-0041	CPV ST. CHARLES	04/23/2014	4/26/2018 AUXILLARY BOILER	93 MMBTU/H	EXCLUSIVE USE OF NATURAL GAS, ULTRA LOW-NOX BURI	0.011 LB/MMBTU	LAER
TX-0713	TENASKA BROWNSVILLE GENERATING STATION	04/29/2014	5/9/2016 boiler	90 MMBTU/H	ultra low-NOx burners, limited use	9 PPMVD	BACT-PSD
TX-0714	S R BERTRON ELECTRIC GENERATING STATION	12/19/2014	5/9/2016 boiler	80 MMBTU/H	low-NOx burners	0.036 LB/MMBTU	BACT-PSD
TX-0693	ANTELOPE ELK ENERGY CENTER	04/22/2014	7/29/2016 heater	5.5 MMBTU/H		0.036 LB/MMBTU	BACT-PSD
TX-0691	PH ROBINSON ELECTRIC GENERATING STATION	05/20/2014	5/9/2016 fuel gas heater	18 MMBTU/H		0.1 LB/MMBTU	BACT-PSD
TX-0694	INDECK WHARTON ENERGY CENTER	02/02/2015	5/9/2016 heater	3 MMBTU/H		0.1 LB/MMBTU	BACT-PSD
TX-0680	SONORA GAS PLANT	06/14/2013	5/9/2016 Heater	10 MMBTU/H	low-NOx burners	0.01 LB/MMBTU	BACT-PSD
TX-0680	SONORA GAS PLANT	06/14/2013	5/9/2016 2 Heaters	5 MMBTU/H		0.1 LB/MMBTU	BACT-PSD
AK-0083	KENAI NITROGEN OPERATIONS	01/06/2015	2/19/2016 Five (5) Waste Heat Boilers	50 MMBTU/H	Selective Catalytic Reduction	7 PPMV	BACT-PSD
OR-0050	TROUTDALE ENERGY CENTER, LLC	03/05/2014	5/5/2016 Auxiliary boiler	39.8 MMBTU/H	Utilize Low-NOx burners and FGR.	0.035 LB/MMBTU	BACT-PSD
MA-0039	SALEM HARBOR STATION REDEVELOPMENT	01/30/2014	5/5/2016 Auxiliary Boiler	80 MMBTU/H	ultra low NOx burners	0.011 LB/MMBTU	LAER
MI-0412	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	12/04/2013	5/5/2016 Fuel pre-heater (EUFUELHTR)	3.7 MMBTU/H	Good combustion practices.	0.55 LB/H	BACT-PSD
MI-0412	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	12/04/2013	5/5/2016 Auxiliary Boiler B (EUAUXBOILERB)	95 MMBTU/H	Dry low NOx burners, flue gas recirculation and good con	0.05 LB/MMBTU	BACT-PSD
MI-0412	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	12/04/2013	5/5/2016 Auxiliary Boiler A (EUAUXBOILERA)	55 MMBTU/H	Low NOx burners and good combustion practices	0.05 LB/MMBTU	BACT-PSD
MI-0410	THETFORD GENERATING STATION	07/25/2013	5/4/2016 FGAUXBOILERS: Two auxiliary boilers &It 100 MMBTU/H heat		nput (Low NOx burners and flue gas recirculation.	0.05 LB/MMBTU	BACT-PSD
OK-0156	NORTHSTAR AGRI IND ENID	07/31/2013	5/11/2018 Refinery Boiler	5 MMBTUH	Good Combustion	0.0075 LB/MMBTU	N/A
OK-0153	ROSE VALLEY PLANT	03/01/2013	7/29/2016 REGENERATION HEATERS	5.61 MMBTUH	LOW-NOX BURNERS	0.045 LB/MMBTU	BACT-PSD
OK-0153	ROSE VALLEY PLANT	03/01/2013	7/29/2016 HOT OIL HEATER	17.4 MMBTUH	LOW-NOX BURNERS.	0.045 LB/MMBTU	BACT-PSD
WY-0075	CHEVENNE PRAIRIE GENERATING STATION	07/16/2014	5/11/2018 Auxiliary Boiler	25.06 MMBtu/h	Ultra low NOx burners and flue gas recirculation	0.0175 LB/MMBTU	BACT-PSD
TX-0656	GAS TO GASOLINE PLANT	05/16/2014	5/12/2016 Heaters	45 MMBTU/H	ultra low NOx burners	0.036 LB/MMBTU	BACT-PSD
TX-0656	GAS TO GASOLINE PLANT	05/16/2014	5/12/2016 heaters (5)	24.3 MMBTU/H	ultra low NOx burners	0.036 LB/MMBTU	BACT-PSD
PA-0296	BERKS HOLLOW ENERGY ASSOC LLC/ONTELAUNEE	12/17/2013	3/2/2020 Auxiliary Boiler	40 MMBTU/H	and a low wox burners	1.01 T/YR	OTHER CASE
IA-0107	MARSHALLTOWN GENERATING STATION	04/14/2014	5/4/2016 dew point heater	13.32 mmBtu/hr		0.013 LB/MMBTU	BACT-PSD
IA-0107	MARSHALLTOWN GENERATING STATION	04/14/2014	5/4/2016 auxiliary boiler	60.1 mmBtu/hr		0.013 LB/MMBTU	BACT-PSD
MI-0406	RENAISSANCE POWER LLC	11/01/2013	7/7/2016 FG-AUXBOILER1-2; Two (2) natural gas-fired auxiliary boilers.	40 MMBTU/H	Good combustion practices.	0.035 LB/MMBTU	BACT-PSD
LA-0272	AMMONIA PRODUCTION FACILITY	03/27/2013	5/4/2016 AMMONIA START-UP HEATER (102-B)	59.4 MM BTU/HR	GOOD COMBUSTION PRACTICES: PROPER DESIGN OF BUI	14.65 LB/H	BACT-PSD
OH-0355	GENERAL ELECTRIC AVIATION. EVENDALE PLANT	05/07/2013	5/4/2016 4 Indirect-Fired Air Preheaters	0	GOOD COMBOSTION TRACTICES. THOI ER DESIGN OF BOT	0.14 LB/MMBTU	LAER
SC-0149	KLAUSNER HOLDING USA, INC	01/03/2013	8/27/2014 NATURAL GAS BOILER EU004	46 MMBTU/H		0.036 LB/MMBTU	OTHER CASE
SC-0149 SC-0149	KLAUSNER HOLDING USA, INC	01/03/2013	8/27/2014 NATURAL GAS BOILER EU004 8/27/2014 NATURAL GAS BOILER EU005	46 MMBTU/H		0.036 LB/MMBTU	OTHER CASE
SC-0149 SC-0149	KLAUSNER HOLDING USA, INC	01/03/2013	8/27/2014 NATURAL GAS BOILER EU005	46 MMBTU/H		0.036 LB/MMBTU	OTHER CASE
PA-0291	HICKORY RUN ENERGY STATION			40 MMBTU/H		0.036 LB/MMBTU	OTHER CASE
PA-0291 OH-0352		04/23/2013	3/2/2020 AUXILIARY BOILER		low NOv humans and flue are resimulation		
	OREGON CLEAN ENERGY CENTER	06/18/2013	5/4/2016 Auxillary Boiler	99 MMBtu/H	low NOx burners and flue gas recirculation	1.98 LB/H	BACT-PSD
VA-0321	BRUNSWICK COUNTY POWER STATION	03/12/2013	6/19/2019 AUXILIARY BOILER	66.7 MMBTU/H	Dry Low NOx burner.	9 PPMVD	BACT-PSD

## Table C-22. RBLC CO Summary for External Combustion Devices <100 MMBtu/hr, Natural Gas-Fired

	For stillers all some		Date Last	<b>-</b> h	Control Mathed Description	Fordering 11 11	DACIC
BLCID	Facility Name	Issuance Date		Throughput	Control Method Description	Emission Limit	BASIS
-0359	NUCOR STEEL	03/30/2023	5/23/2023 Boiler (CC-BOIL)	50 MMBtu/hr	good combustion practices	61 LB/MMSCF	BACT-PSI
-0359	NUCOR STEEL	03/30/2023	5/23/2023 Hot Water Circuit Burner for Galvanizing Line	9 MMBtu/hr	good combustion practices	84 LB/MMSCF	BACT-PS
-0359	NUCOR STEEL	03/30/2023	5/23/2023 Hot Water Circuit Burner for Sheet Metal Coating Line	5.12 MMBtu/hr	good combustion practices	84 LB/MMSCF	BACT-PS
-0391	MAGNOLIA POWER GENERATING STATION UNIT 1	06/03/2022	5/23/2023 Auxiliary Boiler	80 mm BTU/h	Good combustion practices; compliance with 40 CFR 63 5	0.05 LB/MM BTU	BACT-PS
0116	NOVELIS CORPORATION - GUTHRIE	07/25/2022	4/25/2023 EU 037 - Sow Dryer	20 MMBtu/hr	Good Combustion & Operation Practices (GCOP) Plan	1.46 LB/HR	BACT-PS
0116	NOVELIS CORPORATION - GUTHRIE	07/25/2022	4/25/2023 EU 041a - Direct-Fired Building Heating Systems	53 MMBtu/hr (total)	Good Combustion & Operation Practices (GCOP) Plan	4.45 LB/HR	BACT-P
0116	NOVELIS CORPORATION - GUTHRIE	07/25/2022	4/25/2023 EU 041b - Indirect-Fired Building Heating Systems ≤ 1 MMB	3 MMBtu/hr (total)	Good Combustion & Operation Practices (GCOP) Plan	0.25 LB/HR	BACT-P
0116	NOVELIS CORPORATION - GUTHRIE	07/25/2022	4/25/2023 EU 041c - Indirect-Fired Building Heating Systems > 1 MMBt	19.2 MMBtu/hr (total)	Good Combustion & Operation Practices (GCOP) Plan	1.61 LB/HR	BACT-P
-0454	LBWL-ERICKSON STATION	12/20/2022	5/23/2023 EUAUXBOILERnatural-gas fired auxiliary boiler, rated at less th	50 MMBTU/H	Good combustion practices.	50 PPM	BACT-P
1-0387	INTEL OHIO SITE	09/20/2022	4/25/2023 45.6 MMBtu/hr Natural Gas-Fired Nitrogen Vaporizers: B029 th	45.6 MMBTU/H	Good combustion practices and the use of natural gas	8.76 T/YR	BACT-P
I-0387	INTEL OHIO SITE	09/20/2022	4/25/2023 29.4 MMBtu/hr Natural Gas-Fired Boilers: B001 through B028	29.4 MMBTU/H	Good combustion practices and the use of natural gas	33 T/YR	BACT-P
-0452	MEC SOUTH, LLC	06/23/2022	4/25/2023 EUAUXBOILER (South Plant): Auxiliary Boiler	61.5 MMBTU/H	Good combustion practices and the use of natural gas	0.08 LB/MMBTU	BACT-P
					· · · · · · · · · · · · · · · · · · ·		
I-0451	MEC NORTH, LLC	06/23/2022	4/25/2023 EUAUXBOILER (North Plant): Auxiliary Boiler	61.5 MMBTU/H	Good combustion practices	0.08 LB/MMBTU	BACT-P
0133	LINCOLN LAND ENERGY CENTER	07/29/2022	12/6/2022 Auxiliary Boiler	80 mmBtu/hour	Good burner design and good combustion practices.	0.037 POUNDS/MMBTU	BACT-P
I-0306	WPL- RIVERSIDE ENERGY CENTER	02/28/2020	9/16/2022 Temporary Boiler (B98A)	14.67 MMBTU/H	Shall be operated for no more than 500 hours and combi	0.04 LB/MMBTU	BACT-P
1-0300	NEMADJI TRAIL ENERGY CENTER	09/01/2020	9/16/2022 Natural Gas-Fired Auxiliary Boiler (B02)	100 MMBTU/H	Oxidation Catalyst and operate and maintain boiler accor	0.0037 LB/MMBTU	BACT-P
-0939	ORANGE COUNTY ADVANCED POWER STATION	03/13/2023	5/23/2023 Water Bath Heater	16.8 MMBTU/HR	Good combustion practices	50 PPMVD	BACT-P
1-0173	BIG RIVER STEEL LLC	01/31/2022	3/4/2022 Hydrogen Plant #2 Reformer Furnace	75 MMBtu/hr	Combustion of Natural gas and Good Combustion Practic	0.0824 LB/MMBTU	BACT-P
1-0173	BIG RIVER STEEL LLC	01/31/2022	3/4/2022 Pickle Line Boiler	53.7 MMBtu/hr	Combustion of Natural gas and Good Combustion Practic	0.0824 LB/MMBTU	BACT-P
-0173	BIG RIVER STEEL LLC	01/31/2022	3/4/2022 Galvanizing Line Boilers #1 and #2	53.7 MMBtu/hr	Combustion of Natural gas and Good Combustion Practic	0.0824 LB/MMBTU	BACT-P
-0173	BIG RIVER STEEL LLC	01/31/2022	3/4/2022 Pickle Galvanizing Line Boiler	53.7 MMBtu/hr	Combustion of Natural gas and Good Combustion Practic	0.0824 LB/MMBTU	BACT-P
-0448	GRAYLING PARTICLEBOARD	12/18/2020	8/16/2022 Thermal oil heater (EUTOH in FGTOH)	38 MMBTU/H	Good design and operation	0.082 LB/MMBTU	BACT-P
1-0448	GRAYLING PARTICLEBOARD	12/18/2020	8/16/2022 Thermal oil system for thermally fused lamination lines (EUFLT)	10.2 MMBTU/H	Good design and operation	0.082 LB/MMBTU	BACT-P
H-0383	PETMIN USA INCORPORATED		3/4/2022 Ladle Preheaters (P002, P003 and P004)	15 MMBTU/H		0.521 LB/H	BACT-P
		07/17/2020			Good combustion practices and the use of natural gas		
H-0383	PETMIN USA INCORPORATED	07/17/2020	3/4/2022 Startup boiler (B001)	15.17 MMBTU/H	good combustion practices and the use of natural gas	1.25 LB/H	BACT-P
-0371	SHADY HILLS COMBINED CYCLE FACILITY	06/07/2021	3/4/2022 60 MMBtu/hour Auxiliary Boiler	60 MMBtu/hour	Good combustion practices and low-NOx burners	0.08 LB/MMBTU	BACT-P
-0328	PLANT BARRY	11/09/2020	3/4/2022 90.5 MMBtu/hr Aux Boiler	90.5 MMBtu/hr		0.037 LB/MMBTU	BACT-P
-0329	COLBERT COMBUSTION TURBINE PLANT	09/21/2021	3/4/2022 Three Gas Heaters	10 MMBtu/hr		0.08 LB/MMBTU	BACT-P
1-0172	NUCOR STEEL ARKANSAS	09/01/2021	3/4/2022 SN-202, 203, 204 Pickle Line Boilers	0	Good Combustion Practice	0.084 LB/MMBTU	BACT-P
-0171	NUCOR STEEL ARKANSAS	02/14/2019	9/10/2021 SN-142 Vacuum Degasser Boiler	50.4 MMBTU/hr	Good combustion practices	0.075 LB/MMBTU	BACT-P
-0171	NUCOR STEEL ARKANSAS	02/14/2019	9/10/2021 SN-233 Galvanizing Line Boilers	15 MMBTU/hr each	Good combustion practices	0.084 LB/MMBTU	BACT-P
1-0447	LBWLERICKSON STATION	01/07/2021	9/10/2021 EUAUXBOILERnat gas fired auxiliary boiler	50 MMBTU/H	Good combustion practices.	50 PPM	BACT-P
-0168	BIG RIVER STEEL LLC	03/17/2021	5/26/2021 Galvanizing Line #2 Furnace	150.5 MMBtu/hr	Combustion of Natural gas and Good Combustion Practic	0.0824 LB/MMBTU	BACT-P
8-0168	BIG RIVER STEEL LLC	03/17/2021	5/26/2021 Decarburizing Line Furnace Section	58 MMBtu/hr	Combustion of Natural gas and Good Combustion Practic	0.0824 LB/MMBTU	BACT-P
I-0324	MIDWEST FERTILIZER COMPANY LLC	05/06/2022	8/16/2022 startup heater EU-002	33.34 MMBtu/hr	shall combust natural gas, shall be controlled by good co	200 HR/YR	BACT-P
-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Cold Mill Complex Makeup Air Units (EP 21-19)	40 MMBtu/hr, total	The permittee must develop a Good Combustion and Op	84 LB/MMSCF	BACT-P
7-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Vacuum Degasser Boiler (EP 20-13)	50.4 MMBtu/hr	The permittee must develop a Good Combustion and Op	61 LB/MMSCF	BACT-P
-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Pickle Line #2 â€" Boiler #1 & #2 (EP 21-04 & EP 21-0	18 MMBtu/hr, each	The permittee must develop a Good Combustion and Op	84 LB/MMSCF	BACT-P
-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Alkali Cleaning Section Heater (EP 21-07B)	23 MMBtu/hr	The permittee must develop a Good Combustion and Op	84 LB/MMSCF	BACT-P
/-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Radiant Tube Furnace (EP 21-08B)	36 MMBtu/hr	The permittee must develop a Good Combustion and Op	84 LB/MMSCF	BACT-P
-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Annealing Furnaces (15) (EP 21-15)	4.8 MMBtu/hr, each	The permittee must develop a Good Combustion and Op	84 LB/MMSCF	BACT-P
/-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Preheat Furnace (EP 21-08A)	94 MMBtu/hr	The permittee must develop a Good Combustion and Op	84 LB/MMSCF	BACT-P
-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Zinc Pot Preheater (EP 21-064)	3 MMBtu/hr		84 LB/MMSCF	BACT-P
					The permittee must develop a Good Combustion and Op		
-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Heated Transfer Table Furnace (EP 02-03)	65.5 MMBtu/hr	The permittee must develop a Good Combustion and Op	84 LB/MMSCF	BACT-P
AI-0445		11/26/2019	12/23/2020 FGFUELHTR (2 fuel pre-heaters)	27 MMBTU/H	Good combustion practices	1.11 LB/H	BACT-P
<-0085	GAS TREATMENT PLANT	08/13/2020	8/16/2022 Two (2) Buyback Gas Bath Heaters and Three (3) Operations Ca	32 MMBtu/hr	Good Combustion Practices, Clean Fuels, and Limited Op	0.087 LB/MMBTU	BACT-P
-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 15-01 - Natural Gas Direct-Fired Space Heaters, Process Wat	40 MMBtu/hr, combined	This EP is required to have a Good Combustion and Oper	84 LB/MMSCF	BACT-P
-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 05-01 - Group 1 Car Bottom Furnaces #1 - #3	28 MMBtu/hr, each	This EP is required to have a Good Combustion and Oper	84 LB/MMSCF	BACT-P
-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 04-02 - Austenitizing Furnace	54 MMBtu/hr	This EP is required to have a Good Combustion and Oper	84 LB/MMSCF	BACT-P
-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 05-02 - Group 2 Car Bottom Furnaces A & amp; B		This EP is required to have a Good Combustion and Oper	84 LB/MMSCF	BACT-P
-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 03-02 - Ingot Car Bottom Furnaces #1-#4	37 MMBtu/hr, each	This EP is required to have a Good Combustion and Oper	84 LB/MMSCF	BACT-P
-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 03-05 - Steckel Mill Coiling Furnaces #1 & #2	17.5 MMBtu/hr, each	This EP is required to have a Good Combustion and Oper	84 LB/MMSCF	BACT-P
-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 04-03 - Tempering Furnace	48 MMBtu/hr	This EP is required to have a Good Combustion and Oper	84 LB/MMSCF	BACT-P
A-0364	FG LA COMPLEX		8/9/2021 Hot Oil Heaters 1 and 2	48 WIWBLU/III		0.037 LB/MMBTU	BACT-P
		01/06/2020			Good combustion practices and compliance with the app		
-0364	FG LA COMPLEX	01/06/2020	8/9/2021 PR Waste Heat Boiler	94 mm btu/h	Good combustion practices and oxidation catalyst.	26.21 LB/H	BACT-P
-0349	DRIFTWOOD LNG FACILITY	07/10/2018	8/6/2021 Hot Oil Heaters (5)	16.13 mm btu/hr	Good Combustion Practices	0	BACT-P
-0888	ORANGE POLYETHYLENE PLANT	04/23/2020	11/12/2020 Heaters	100 MMBtu	Good combustion practice and proper design.	50 PPMVD	BACT-P
1-0381	NORTHSTAR BLUESCOPE STEEL, LLC	09/27/2019	8/9/2021 Tunnel Furnace #2 (P018)	88 MMBTU/H	Use natural gas, use of baffle type burners, good combus	6.16 LB/H	BACT-P
-0442	THOMAS TOWNSHIP ENERGY, LLC	08/21/2019	8/9/2021 FGAUXBOILER	80 MMBTU/H	Good combustion practices	0.037 LB/MMBTU	BACT-F
-0442	THOMAS TOWNSHIP ENERGY, LLC	08/21/2019	8/9/2021 FGPREHEAT	7 MMBTU/H	Good combustion practices	0.037 LB/MMBTU	BACT-P
I-0441	LBWLERICKSON STATION	12/21/2018	8/9/2021 EUAUXBOILERnatural gas fired auxiliary boiler rated at &It= 9	99 MMBTU/H	Good combustion practices	50 PPM	BACT-P
1-0440	MICHIGAN STATE UNIVERSITY	05/22/2019	8/9/2021 FGFUELHEATERS	25 MMBTU/H	Good combustion practices	0.08 LB/MMBTU	BACT-P
					· · · · · · · · · · · · · · · · · · ·		
1-0291	GRAYMONT WESTERN LIME-EDEN	01/28/2019	3/8/2022 P05 Natural Gas Fired Line Heater	1.5 mmBTU/hr	Good Combustion Practices	0.082 LB/MMBTU	BACT-F
1-0284	SIO INTERNATIONAL WISCONSIN, INCENERGY PLANT	04/24/2018	3/8/2022 B13-B24 & amp; B25-B36 Natural Gas-Fired Boilers	28 mmBTU	Ultra-Low NOx Burners, Flue Gas Recirculation, and Good	25 PPMVD	BACT-F
1-0283	AFE, INC. â€"LCM PLANT	04/24/2018	3/8/2022 B01-B12, Boilers	28 mmBTU/hr	Ultra-low NOx Burners, Flue Gas Recirculation and Good	25 PPMVD	BACT-F
0130	JACKSON ENERGY CENTER	12/31/2018	4/16/2020 Auxiliary Boiler	96 mmBtu/hr	Good combustion practice	0.037 LB/MMBTU	BACT-F
R-0159	BIG RIVER STEEL LLC	04/05/2019	11/10/2020 BOILER, PICKLE LINE	0	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	0.0824 LB/MMBTU	BACT-P
R-0159	BIG RIVER STEEL LLC	04/05/2019	11/10/2020 PREHEATERS, GALVANIZING LINE SN-28 and SN-29	0	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIC	0.0824 LB/MMBTU	BACT-P

# Table C-22. RBLC CO Summary for External Combustion Devices <100 MMBtu/hr, Natural Gas-Fired

RBLCID	Facility Name	Permit Issuance Date	Date Last Updated Process Name	Throughout	Control Method Description	Emission Limit	BASIS
	•			Throughput			
R-0159	BIG RIVER STEEL LLC	04/05/2019	11/10/2020 BOILERS SN-26 AND SN-27, GALVANIZING LINE	0	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	0.0824 LB/MMBTU	BACT-PSI
C-0192	CANFOR SOUTHERN PINE - CONWAY MILL	05/21/2019	6/3/2019 Boiler No. 2	0	Work Practice Standards	0.0375 LB/MMBTU	BACT-PS
PA-0319	RENAISSANCE ENERGY CENTER	08/27/2018	10/11/2019 NATURAL GAS FIRED AUXILIARY BOILER	88 MMBtu/hr	Lo-NOx burners, Flue Gas Recirculation, good combustion	0.055 LB/MMBTU	BACT-PSI
H-0377	HARRISON POWER	04/19/2018	6/19/2019 Auxiliary Boiler (B001)	44.55 MMBTU/H	Good combustion practices	1.67 LB/H	BACT-PSE
H-0377	HARRISON POWER	04/19/2018	6/19/2019 Auxiliary Boiler (B002)	80 MMBTU/H	Good combustion practices	2.48 LB/H	BACT-PSI
-0367	SHADY HILLS COMBINED CYCLE FACILITY	07/27/2018	3/4/2022 60 MMBtu/hour Auxiliary Boiler	60 MMBtu/hour	Good combustion practices and low-NOx burners	0.08 LB/MMBTU	BACT-PSE
H-0375	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	11/07/2017	6/19/2019 Auxiliary Boiler (B001)	26.8 MMBTU/H	Good combustion controls	0.99 LB/H	BACT-PSE
H-0374	GUERNSEY POWER STATION LLC	10/23/2017	6/19/2019 Fuel Gas Heaters (2 identical, P007 and P008)	15 MMBTU/H	Combustion control	0.83 LB/H	BACT-PSE
H-0372	OREGON ENERGY CENTER	09/27/2017	6/19/2019 Auxiliary Boiler (B001)	37.8 MMBTU/H	good combustion controls	2.08 LB/H	BACT-PSE
)H-0370	TRUMBULL ENERGY CENTER	09/07/2017	6/19/2019 Auxiliary Boiler (B001)	37.8 MMBTU/H	Good combustion controls	2.08 LB/H	BACT-PSE
DH-0368	PALLAS NITROGEN LLC	04/19/2017	6/19/2019 Startup Heater (B001)	100 MMBTU/H	good combustion control (i.e., high temperatures, sufficie	8.24 LB/H	BACT-PSI
0H-0367	SOUTH FIELD ENERGY LLC	09/23/2016	6/19/2019 Auxiliary Boiler (B001)	99 MMBTU/H	Good combustion controls and natural gas/ultra low sulf	7.92 LB/H	BACT-PSE
)H-0366	CLEAN ENERGY FUTURE - LORDSTOWN, LLC	08/25/2015	6/19/2019 Auxiliary Boiler (B001)	34 MMBTU/H	Good combustion controls	1.87 LB/H	BACT-PSE
X-0851	RIO BRAVO PIPELINE FACILITY	12/17/2018	2/19/2019 Thermal Oxidizer	71.3 MMBTU/HR		0.082 LB/MMBTU	BACT-PSE BACT-PSE
					Natural Gas / Clean Fuel, good combustion practices.		
PA-0316		01/26/2018	3/26/2019 Auxiliary Boiler	118800 MMBtu/12 month p		0.036 LB	BACT-PSD
L-0129	CPV THREE RIVERS ENERGY CENTER	07/30/2018	2/19/2019 Auxiliary Boiler	96 mmBtu/hr	Good combustion practices	0.037 LB/MMBTU	BACT-PSD
WV-0032		09/18/2018	6/28/2022 Auxiliary Boiler	111.9 mmBtu/hr	Good Combustion Practices	4.14 LB/HR	BACT-PSD
AR-0155	BIG RIVER STEEL LLC	11/07/2018	6/19/2019 BOILER, PICKLE LINE	53.7 MMBTU/HR	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	0.0824 LB/MMBTU	BACT-PSD
AR-0155	BIG RIVER STEEL LLC	11/07/2018	6/19/2019 BOILER SN-26, GALVANIZING LINE	53.7 MMBTU/HR	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	0.0824 LB/MMBTU	BACT-PSD
AR-0155	BIG RIVER STEEL LLC	11/07/2018	6/19/2019 PREHEATER, GALVANIZING LINE SN-28	78.2 MMBTU/HR	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	0.0824 LB/MMBTU	BACT-PSD
vII-0435	BELLE RIVER COMBINED CYCLE POWER PLANT	07/16/2018	2/19/2019 EUAUXBOILER: Auxiliary Boiler	99.9 MMBTU/H	Good combustion practices	0.075 LB/MMBTU	BACT-PSD
VII-0435	BELLE RIVER COMBINED CYCLE POWER PLANT	07/16/2018	2/19/2019 EUFUELHTR1: Natural gas fired fuel heater	20.8 MMBTU/H	Good combustion controls.	0.77 LB/H	BACT-PSD
MI-0435	BELLE RIVER COMBINED CYCLE POWER PLANT	07/16/2018	2/19/2019 EUFUELHTR2: Natural gas fired fuel heater	3.8 MMBTU/H	Good combustion controls	0.14 LB/H	BACT-PSD
MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	06/29/2018	2/19/2019 EUAUXBOILER (North Plant): Auxiliary Boilder	61.5 MMBTU/H	Good compution practices.	0.08 LB/MMBTU	BACT-PSD
MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	06/29/2018	2/19/2019 EUAUXBOILER (South Plant): Auxiliary Boiler	61.5 MMBTU/h	Good combustion practices.	0.08 LB/MMBTU	BACT-PSD
*WV-0029		03/27/2018	6/28/2022 Auxiliary Boiler	77.8 mmBtu/hr	Good Combustion Practices	2.88 LB/HR	BACT-PSD
IN-0285				0	Good compassion Fractices	,	
	WHITING CLEAN ENERGY, INC.	08/02/2017	6/15/2018 Space Heaters	-		0.038 LB/MMBTU	BACT-PSD
FL-0363	DANIA BEACH ENERGY CENTER	12/04/2017	3/4/2022 99.8 MMBtu/hr auxiliary boiler	99.8 MMBtu/hr	Clean fuel	0.08 LB/MMBTU	BACT-PSD
MI-0426	DTE GAS COMPANY - MILFORD COMPRESSOR STATION	03/24/2017	3/8/2018 FGAUXBOILERS (6 auxiliary boilers EUAUXBOIL2A, EUAUXBOIL3	3 MMBTU/H	Good combustion practices and clean burn fuel (pipeline	84 LB/MMSCF	BACT-PSD
NY-0104	CPV VALLEY ENERGY CENTER	08/01/2013	9/28/2017 Auxiliary boiler	0	Good combustion practice.	0.0721 LB/MMBTU	BACT-PSD
NY-0103	CRICKET VALLEY ENERGY CENTER	02/03/2016	9/28/2017 Auxiliary boiler	60 MMBTU/H	good combustion practice	0.0375 LB/MMBTU	BACT-PSD
MI-0425	GRAYLING PARTICLEBOARD	05/09/2017	11/15/2017 EUTOH in FGTOH	38 MMBTU/H	Good design and operation.	0.082 LB/MMBTU	BACT-PSD
MI-0425	GRAYLING PARTICLEBOARD	05/09/2017	11/15/2017 EUFLTOS1 in FGTOH	10.2 MMBTU/H	Good design and operation.	0.082 LB/MMBTU	BACT-PSD
PA-0311	MOXIE FREEDOM GENERATION PLANT	09/01/2015	12/21/2018 Auxilary Boiler	55.4 MMBtu/hr		0.037 LB/MMBTU	BACT-PSD
MI-0424	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	12/05/2016	3/8/2018 EUFUELHTR (Fuel pre-heater)	3.7 MMBTU/H	Good combustion practices.	0.41 LB/H	BACT-PSD
MI-0424	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	12/05/2016	3/8/2018 EUAUXBOILER (Auxiliary boiler)	83.5 MMBTU/H	Good combustion practices.	0.077 LB/MMBTU	BACT-PSD
PA-0309	LACKAWANNA ENERGY CTR/JESSUP	12/23/2015	12/21/2018 Auxillary Boiler	13.31 MMBtu/hr	····· ·· ··· ·· ··· ·· ···	0.037 LB/MMBTU	BACT-PSD
PA-0310	CPV FAIRVIEW ENERGY CENTER	09/02/2016	12/21/2018 Auxilary boiler	92.4 MMBtu/hr	ULSD and good combustion practices	0.037 LB/MMBTU	BACT-PSD
IN-0263	MIDWEST FERTILIZER COMPANY LLC	03/23/2010	8/22/2017 STARTUP HEATER EU-002	70 MMBTU/HR	GOOD COMBUSTION PRACTICES	2.556 LB/H	BACT-PSD BACT-PSD
PA-0307	YORK ENERGY CENTER BLOCK 2 ELECTRICITY GENERATION PR						BACT-PSD BACT-PSD
			12/21/2018 Auxilary Boiler	62.04 MCF/hr	Good combustion practices	0.06 LB/MMBTU	
MI-0423	INDECK NILES, LLC	01/04/2017	3/8/2018 FGFUELHTR (Two fuel pre-heaters identified as EUFUELHTR1 &	27 MMBTU/H	Good combustion practices.	2.22 LB/H	BACT-PSD
KS-0030	MID-KANSAS ELECTRIC COMPANY, LLC - RUBART STATION	03/31/2016	3/1/2023 Indirect fuel-gas heater	2 mmBTU/hr		0.16 LB/H	BACT-PSD
*LA-0315	G2G PLANT	05/23/2014	4/5/2021 Reactor Charge Heater - 53B001	10.1 MMBTU/HR	Combustion controls (proper burner design and operatio	0.83 LB/H	BACT-PSD
*LA-0315	G2G PLANT	05/23/2014	4/5/2021 Regeneraton Heater - 51B001	61 MMBTU/HR	Combustion controls (proper burner design and operatio	5 LB/H	BACT-PSD
*LA-0315	G2G PLANT	05/23/2014	4/5/2021 Recycle Gas Heater - 51B002A	33 MMBTU/HR	Combustion controls (proper burner design and operatio	2.67 LB/H	BACT-PSD
*LA-0315	G2G PLANT	05/23/2014	4/5/2021 Recycle Gas Heater - 51B002B	33 MMBTU/HR	Combustion controls (proper burner design and operatio	2.67 LB/H	BACT-PSD
*LA-0315	G2G PLANT	05/23/2014	4/5/2021 Recycle Gas Heater - 51B002C	33 MMBTU/HR	Combustion controls (proper burner design and operatio	2.67 LB/H	BACT-PSD
*LA-0315		05/23/2014	4/5/2021 Recycle Gas Heater - 51B002D	33 MMBTU/HR	Combustion controls (proper burner design and operatio	2.67 LB/H	BACT-PSD
*LA-0315		05/23/2014	4/5/2021 Recycle Gas Heater - 51B002E	33 MMBTU/HR	Combustion controls (proper burner design and operatio	2.67 LB/H	BACT-PSD
A-0311	DONALDSONVILLE NITROGEN COMPLEX	07/15/2013	4/28/2017 No. 6 Ammonia Plant Start-up Heater (4-13, EQT 158)	94.5 MM Btu/hr	Good combustion practices; proper engineering design	7.78 LB/HR	BACT-PSD
LA-0307	MAGNOLIA LNG FACILITY	03/21/2016	4/28/2017 No. 9 Annuolia Flant State up Heater (4-13, EQT 138) 4/28/2017 Regenerative Heaters	7.37 mm btu/hr	good combustion practices	0	BACT-PSD BACT-PSD
LA-0307	LAKE CHARLES METHANOL FACILITY	06/30/2016	4/28/2017 Regenerative nearers 4/28/2017 Gasifier Start-up Preheat Burners	23 MM BTU/hr (each)	· · ·	0	BACT-PSD BACT-PSD
					good engineering practices, good combustion technolog	-	
LA-0305	LAKE CHARLES METHANOL FACILITY	06/30/2016	4/28/2017 WSA Preheat Burners	0	good engineering design and practices and use of clean f	0	BACT-PSD
MI-0421	GRAYLING PARTICLEBOARD	08/26/2016	7/20/2017 EUFLTOS1 in FGTOH (Thermal Oil System for Thermally Fused Li	34 MMBTU/H	Good design and operation	0.082 LB/MMBTU	BACT-PSD
MI-0421	GRAYLING PARTICLEBOARD	08/26/2016	7/20/2017 EUTOH (In FGTOH)Thermal Oil Heater	34 MMBTU/H	Good design and operation	0.082 LB/MMBTU	BACT-PSD
AR-0140	BIG RIVER STEEL LLC	09/18/2013	12/13/2016 BOILER, PICKLE LINE	67 MMBTU/H	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	0.0824 LB/MMBTU	BACT-PSD
AR-0140	BIG RIVER STEEL LLC	09/18/2013	12/13/2016 BOILERS SN-26 AND 27, GALVANIZING LINE	24.5 MMBTU/H	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	0.0824 LB/MMBTU	BACT-PSD
AR-0140	BIG RIVER STEEL LLC	09/18/2013	12/13/2016 FURNACES SN-40 AND SN-42, DECARBURIZING LINE	22 MMBTU/H	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	0.0824 LB/MMBTU	BACT-PSD
MI-0420	DTE GAS COMPANYMILFORD COMPRESSOR STATION	06/03/2016	4/28/2017 FGAUXBOILERS	6 MMBTU/H	Good combustion practices and clean burn fuel (pipeline	0.08 LB/MMBTU	BACT-PSD
NJ-0085	MIDDLESEX ENERGY CENTER, LLC	07/19/2016	11/3/2016 AUXILIARY BOILER	4000 H/YR	USE OF NATURAL GAS A CLEAN BURNING FUEL AND GOC	3.61 LB/H	BACT-PSD
NI-0084	PSEG FOSSIL LLC SEWAREN GENERATING STATION	03/10/2016	4/17/2018 Auxiliary Boiler firing natural gas	687 MMCFT/YR	Use of good combustion practices and use of natural gas	2.88 LB/H	BACT-PSD
FL-0356	OKEECHOBEE CLEAN ENERGY CENTER	03/09/2016	7/6/2016 Auxiliary Boiler, 99.8 MMBtu/hr	99.8 MMBtu/hr	Proper combustion prevents CO	0.08 LB/MMBTU	BACT-PSD BACT-PSD
AL-0356		10/09/2015	1/30/2017 PACKAGE BOILER	17.5 MMBTU/H	GCP	0.08 LB/MMBTU	BACT-PSD BACT-PSD
	ALLOYS PLANT			,			
AL-0307	ALLOYS PLANT	10/09/2015	11/30/2017 2 CALP LINE BOILERS	24.59 MMBTU/H	GCP	0.08 LB/MMBTU	BACT-PSD
OK-0173	CMC STEEL OKLAHOMA	01/19/2016	7/7/2016 Heaters (Gas-Fired)	0	Natural Gas Fuel.	0.084 LB/MMBTU	BACT-PSD
DH-0360	CARROLL COUNTY ENERGY	11/05/2013	4/1/2019 Auxiliary Boiler (B001)	99 MMBtu/H	Good combustion practices and combustion optimization	5.45 LB/H	BACT-PSD
MD-0046	KEYS ENERGY CENTER	10/31/2014	5/13/2016 AUXILIARY BOILER	93 MMBTU/H	EFFICIENT BOILER DESIGN AND APPLICATION OF GOOD C	0.08 LB/MMBTU	BACT-PSD
MD-0045	MATTAWOMAN ENERGY CENTER	11/13/2015	5/13/2016 AUXILIARY BOILER	42 MMBTU/H	GOOD COMBUSTION PRACTICES	0.037 LB/MMBTU	BACT-PSD
	PORT OF BEAUMONT PETROLEUM TRANSLOAD TERMINAL (P		7/6/2016 Commercial/Institutional-Size Boilers/Furnaces	40 MMBTU/H	Good combustion practice to ensure complete combustic	50 PPMVD @ 3% O2	BACT-PSD

## Table C-22. RBLC CO Summary for External Combustion Devices <100 MMBtu/hr, Natural Gas-Fired

		Permit	Date Last				
RBLCID	Facility Name	Issuance Date	Updated Process Name	Throughput	Control Method Description	Emission Limit	BASIS
TX-0772	PORT OF BEAUMONT PETROLEUM TRANSLOAD TERMINAL (PB	P11/06/2015	7/6/2016 Commercial/Institutional-Size Boilers/Furnaces	95.7 MMBTU/H	Good combustion practice to ensure complete combustic	50 PPMVD @ 3% O2	BACT-PSD
TX-0772	PORT OF BEAUMONT PETROLEUM TRANSLOAD TERMINAL (PB	P11/06/2015	7/6/2016 Commercial/Institutional-Size Boilers/Furnaces	13.2 MMBTU/H	Good combustion practice to ensure complete combustic	50 PPMVD @ 3% O2	BACT-PSD
OK-0168	SEMINOLE GNRTNG STA	05/05/2015	7/6/2016 NATURAL GAS-FIRED BOILER (<100MMBTUH)	40.4 MMBTUH	NO CONTROLS FEASIBLE; GOOD COMBUSTION PRACTICES	0.0075 LB/MMBTU	BACT-PSD
MD-0042	WILDCAT POINT GENERATION FACILITY	04/08/2014	8/12/2020 AUXILLARY BOILER	45 MMBTU/H	EXCLUSIVE USE OF PIPELINE QUALITY NATURAL GAS AND	0.036 LB/MMBTU	BACT-PSD
MD-0041	CPV ST. CHARLES	04/23/2014	4/26/2018 AUXILLARY BOILER	93 MMBTU/H	GOOD COMBUSTION PRACTICES	0.02 LB/MMBTU	BACT-PSD
TX-0751	EAGLE MOUNTAIN STEAM ELECTRIC STATION	06/18/2015	7/6/2016 Commercial/Institutional Size Boilers (<100 MMBtu) – natι	73.3 MMBTU/H		50 PPM	BACT-PSD
TX-0714	S R BERTRON ELECTRIC GENERATING STATION	12/19/2014	5/9/2016 boiler	80 MMBTU/H	low-NOx burners	0.037 LB/MMBTU	BACT-PSD
TX-0693	ANTELOPE ELK ENERGY CENTER	04/22/2014	7/29/2016 heater	5.5 MMBTU/H		0.08 LB/MMBTU	BACT-PSD
TX-0691	PH ROBINSON ELECTRIC GENERATING STATION	05/20/2014	5/9/2016 fuel gas heater	18 MMBTU/H		0.054 LB/MMBTU	BACT-PSD
TX-0694	INDECK WHARTON ENERGY CENTER	02/02/2015	5/9/2016 heater	3 MMBTU/H		0.04 LB/MMBTU	BACT-PSD
TX-0680	SONORA GAS PLANT	06/14/2013	5/9/2016 Heater	10 MMBTU/H		100 PPMVD	BACT-PSD
TX-0680	SONORA GAS PLANT	06/14/2013	5/9/2016 2 Heaters	5 MMBTU/H		100 PPMVD	BACT-PSD
AK-0083	KENAI NITROGEN OPERATIONS	01/06/2015	2/19/2016 Five (5) Waste Heat Boilers	50 MMBTU/H		50 PPMV	BACT-PSD
MS-0092	EMBERCLEAR GTL MS	05/08/2014	11/7/2016 Regeneration Heater, methanol to gasoline	13 MMBTU/H		0.08 LB/MMBTU	BACT-PSD
MS-0092	EMBERCLEAR GTL MS	05/08/2014	11/7/2016 Reactor Heater, 5	12 MMBTU/H		0.08 LB/MMBTU	BACT-PSD
OR-0050	TROUTDALE ENERGY CENTER, LLC	03/05/2014	5/5/2016 Auxiliary boiler	39.8 MMBTU/H	Utilize Low-NOx burners and FGR.	0.04 LB/MMBTU	BACT-PSD
MA-0039	SALEM HARBOR STATION REDEVELOPMENT	01/30/2014	5/5/2016 Auxiliary Boiler	80 MMBTU/H	Oxidation catalyst	4.7 PPMVD@3% O2	OTHER CASI
MI-0412	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	12/04/2013	5/5/2016 Fuel pre-heater (EUFUELHTR)	3.7 MMBTU/H	Good combustion practices	0.41 LB/H	BACT-PSD
MI-0412	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	12/04/2013	5/5/2016 Auxiliary Boiler B (EUAUXBOILERB)	95 MMBTU/H	Good combustion practices.	0.077 LB/MMBTU	BACT-PSD
MI-0412	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	12/04/2013	5/5/2016 Auxiliary Boiler A (EUAUXBOILERA)	55 MMBTU/H	Good combustion practices	0.077 LB/MMBTU	BACT-PSD
MI-0410	THETFORD GENERATING STATION	07/25/2013	5/4/2016 FGAUXBOILERS: Two auxiliary boilers &It 100 MMBTU/H heat	100 MMBTU/H heat in	put (Efficient combustion.	0.075 LB/MMBTU	BACT-PSD
OK-0156	NORTHSTAR AGRI IND ENID	07/31/2013	5/11/2018 Gas-fired Boiler	95 MMBTUH	Economizer, Insulation, O2 train control, Energy recaptur	146 LB CO2/1000 LB ST	EAN BACT-PSD
OK-0153	ROSE VALLEY PLANT	03/01/2013	7/29/2016 REGENERATION HEATERS	5.61 MMBTUH	GOOD COMBUSTION PRACTICES.	0.0824 LB/MMBTU	BACT-PSD
OK-0153	ROSE VALLEY PLANT	03/01/2013	7/29/2016 HOT OIL HEATER	17.4 MMBTUH	Efficient design and combustion.	0.0824 LB/MMBTU	BACT-PSD
WY-0075	CHEYENNE PRAIRIE GENERATING STATION	07/16/2014	5/11/2018 Auxiliary Boiler	25.06 MMBtu/h	good combustion	0.0375 LB/MMBTU	BACT-PSD
TX-0656	GAS TO GASOLINE PLANT	05/16/2014	5/12/2016 Heaters	45 MMBTU/H	clean fuel and good combustion practices	50 PPM	BACT-PSD
TX-0656	GAS TO GASOLINE PLANT	05/16/2014	5/12/2016 heaters (5)	24.3 MMBTU/H	clean fuel and good combustion practices	50 PPM	BACT-PSD
PA-0296	BERKS HOLLOW ENERGY ASSOC LLC/ONTELAUNEE	12/17/2013	3/2/2020 Auxiliary Boiler	40 MMBTU/H	<b>v</b>	3.31 T/YR	OTHER CASI
IA-0107	MARSHALLTOWN GENERATING STATION	04/14/2014	5/4/2016 dew point heater	13.32 mmBtu/hr		0.041 LB/MMBTU	BACT-PSD
IA-0107	MARSHALLTOWN GENERATING STATION	04/14/2014	5/4/2016 auxiliary boiler	60.1 mmBtu/hr	CO catalytic oxidizer	0.0164 LB/MMBTU	BACT-PSD
MI-0406	RENAISSANCE POWER LLC	11/01/2013	7/7/2016 FG-AUXBOILER1-2; Two (2) natural gas-fired auxiliary boilers.	40 MMBTU/H	Good combustion practices	0.036 LB/MMBTU	BACT-PSD
LA-0272	AMMONIA PRODUCTION FACILITY	03/27/2013	5/4/2016 AMMONIA START-UP HEATER (102-B)	59.4 MM BTU/HR	GOOD COMBUSTION PRACTICES: PROPER DESIGN OF BUI	2.97 LB/H	BACT-PSD
OH-0355	GENERAL ELECTRIC AVIATION, EVENDALE PLANT	05/07/2013	5/4/2016 4 Indirect-Fired Air Preheaters	0		0.15 LB/MMBTU	N/A
SC-0149	KLAUSNER HOLDING USA, INC	01/03/2013	8/27/2014 NATURAL GAS BOILER EU004	46 MMBTU/H		0.039 LB/MMBTU	OTHER CASI
SC-0149	KLAUSNER HOLDING USA, INC	01/03/2013	8/27/2014 NATURAL GAS BOILER EU005	46 MMBTU/H		0.039 LB/MMBTU	OTHER CASI
SC-0149	KLAUSNER HOLDING USA, INC	01/03/2013	8/27/2014 NATURAL GAS BOILER EU006	46 MMBTU/H		0.039 LB/MMBTU	OTHER CASI
PA-0291	HICKORY RUN ENERGY STATION	04/23/2013	3/2/2020 AUXILIARY BOILER	40 MMBTU/H		0.036 LB/MMBTU	OTHER CASI
IA-0106	CF INDUSTRIES NITROGEN, LLC - PORT NEAL NITROGEN COMPI		5/4/2016 Startup Heater	58.8 MMBTU/H	good operating practices & use of natural gas	0.0194 LB/MMBTU	BACT-PSD
OH-0352	OREGON CLEAN ENERGY CENTER	06/18/2013	5/4/2016 Auxillary Boiler	99 MMBtu/H	Good combustion practices and using combustion optimi	5.45 LB/H	BACT-PSD
VA-0321	BRUNSWICK COUNTY POWER STATION	03/12/2013	6/19/2019 AUXILIARY BOILER	66.7 MMBTU/H	Clean fuel and good combustion practices	50 PPMVD	BACT-PSD
VA-0321	BRUNSWICK COUNTY POWER STATION	03/12/2013	6/19/2019 Auxiliary Boiler (30.6 mmBtu/hr)	263000000 standard cubic ft	clean fuel (natural gas) and good combustion practices	50 PPMVD	BACT-PSD

# Table C-23. RBLC VOC Summary for External Combustion Devices <100 MMBtu/hr, Natural Gas-Fired

BLCID	Facility Name	Permit Issuance Date	Date Last Updated Process Name	Throughput	Control Method Description	Emission Limit	BASIS
N-0361	C-PLANT (SPECIALTY SOYBEAN EXTRACTION)	05/12/2023	5/30/2023 SPC Boiler #1 PS37 & amp; SPC Boiler #2 PS38	73.6 MMBtu/hr (each)	Good Combustion Practices	5.5 LB/MMCF (EACH)	BACT
-0359	NUCOR STEEL	03/30/2023	5/23/2023 Boiler (CC-BOIL)	50 MMBtu/hr	good combustion practices and natural gas fuel (clean fu	0.0054 LB/MMBTU	BACT
0359	NUCOR STEEL	03/30/2023	5/23/2023 Hot Water Circuit Burner for Galvanizing Line	9 MMBtu/hr	good combustion practices	5.5 LB/MMSCF	BACT
0359	NUCOR STEEL	03/30/2023	5/23/2023 Hot Water Circuit Burner for Sheet Metal Coating Line	5.12 MMBtu/hr	good combustion practices	5.5 LB/MMSCF	BACT
0955	INEOS OLIGOMERS CHOCOLATE BAYOU	03/14/2023	4/12/2023 HOT OIL HEATER	0		0	LAFR
				-	Burner design for high efficiency combustion.	-	
0955	INEOS OLIGOMERS CHOCOLATE BAYOU	03/14/2023	4/12/2023 HEATER NO 2	0	Burner design for good combustion efficiency	0	LAER
0391	MAGNOLIA POWER GENERATING STATION UNIT 1	06/03/2022	5/23/2023 Auxiliary Boiler	80 mm BTU/h	Good combustion practices; compliance with 40 CFR 63 5	0.0054 LB/MM BTU	BACT
0116	NOVELIS CORPORATION - GUTHRIE	07/25/2022	4/25/2023 EU 037 - Sow Dryer	20 MMBtu/hr	Good Combustion & Operation Practices (GCOP) Plan	0.11 LB/HR	BACT
0116	NOVELIS CORPORATION - GUTHRIE	07/25/2022	4/25/2023 EU 041a - Direct-Fired Building Heating Systems	53 MMBtu/hr (total)	Good Combustion & Operation Practices (GCOP) Plan	0.29 LB/HR	BACT
0116	NOVELIS CORPORATION - GUTHRIE	07/25/2022	4/25/2023 EU 041b - Indirect-Fired Building Heating Systems ≤ 1 MMB	3 MMBtu/hr (total)	Good Combustion & Operation Practices (GCOP) Plan	0.02 LB/HR	BACT
0116	NOVELIS CORPORATION - GUTHRIE	07/25/2022	4/25/2023 EU 041c - Indirect-Fired Building Heating Systems > 1 MMBt	19.2 MMBtu/hr (total)	Good Combustion & Operation Practices (GCOP) Plan	0.11 LB/HR	BAC
0454	LBWL-ERICKSON STATION	12/20/2022	5/23/2023 EUAUXBOILERnatural-gas fired auxiliary boiler, rated at less th	50 MMBTU/H	Good combustion practices.	0.3 LB/H	BAC
-0387	INTEL OHIO SITE	09/20/2022	4/25/2023 45.6 MMBtu/hr Natural Gas-Fired Nitrogen Vaporizers: B029 th	45.6 MMBTU/H	Good combustion practices and the use of natural gas	1.29 T/YR	BAC
0387	INTEL OHIO SITE	09/20/2022	4/25/2023 29.4 MMBtu/hr Natural Gas-Fired Boilers: B001 through B028	29.4 MMBTU/H	Good combustion practices and the use of natural gas	4.86 T/YR	BAC
0452	MEC SOUTH, LLC	06/23/2022	4/25/2023 EUAUXBOILER (South Plant): Auxiliary Boiler	61.5 MMBTU/H	Good combustion practices	0.004 LB/MMBTU	BAC
)451	MEC NORTH, LLC	06/23/2022	4/25/2023 EUAUXBOILER (North Plant): Auxiliary Boiler	61.5 MMBTU/H	Good combustion practices	0.004 LB/MMBTU	BAC
133	LINCOLN LAND ENERGY CENTER	07/29/2022	12/6/2022 Auxiliary Boiler	80 mmBtu/hour		0.0015 POUNDS/MMBTU	BAC
					Good burner design and good combustion practices		
306	WPL- RIVERSIDE ENERGY CENTER	02/28/2020	9/16/2022 Temporary Boiler (B98A)	14.67 MMBTU/H	Shall be operated for no more than 500 hours and combi	0 SEE NOTES	BAC
0064	NORFOLK CRUSH, LLC	11/21/2022	6/9/2023 Boiler A	84 MMBtu/hr		0.52 LB/HR	BAC
0064	NORFOLK CRUSH, LLC	11/21/2022	6/9/2023 Boiler B	84 MMBtu/hr		0.52 LB/HR	BAC
0300	NEMADJI TRAIL ENERGY CENTER	09/01/2020	9/16/2022 Natural Gas-Fired Auxiliary Boiler (B02)	100 MMBTU/H	Oxidation catalyst and operate and maintain boiler accor	0.0027 LB/MMBTU	BAC
297	GREEN BAY PACKAGING- MILL DIVISION	12/10/2019	9/16/2022 Natural Gas-Fired Space Heaters (P44)	8.5 MMBtu/H		0.0055 LB/MMBTU	BAG
939	ORANGE COUNTY ADVANCED POWER STATION	03/13/2023	5/23/2023 Water Bath Heater	16.8 MMBTU/HR	Good combustion practices	0.005 LB/MMBTU	BAC
0173	BIG RIVER STEEL LLC	01/31/2022	3/4/2022 Hydrogen Plant #2 Reformer Furnace	75 MMBtu/hr	Combustion of Natural gas and Good Combustion Practic	0.0054 LB/MMBTU	BAG
173	BIG RIVER STEEL LLC	01/31/2022	3/4/2022 Pickle Line Boiler	53.7 MMBtu/hr	Combustion of Natural gas and Good Combustion Practic	0.0054 LB/MMBTU	BAC
)173	BIG RIVER STEEL LLC	01/31/2022	3/4/2022 Galvanizing Line Boilers #1 and #2	53.7 MMBtu/hr	Combustion of Natural gas and Good Combustion Practic	0.0054 LB/MMBTU	BAC
0173	BIG RIVER STEEL LLC	01/31/2022	3/4/2022 Pickle Galvanizing Line Boiler	53.7 MMBtu/hr	Combustion of Natural gas and Good Combustion Practic	0.0054 LB/MMBTU	BAC
448	GRAYLING PARTICLEBOARD	12/18/2020	8/16/2022 Thermal oil heater (EUTOH in FGTOH)	38 MMBTU/H	Good design and operating/combustion practices	0.0054 LB/MMBTU	BAC
448	GRAYLING PARTICLEBOARD	12/18/2020	8/16/2022 Thermal oil system for thermally fused lamination lines (EUFLTC	10.2 MMBTU/H	Good Design and Operating/Combustion Practices	0.0054 LB/MMBTU	BAC
328	PLANT BARRY	11/09/2020	3/4/2022 90.5 MMBtu/hr Aux Boiler	90.5 MMBtu/hr		0.004 LB/MMBTU	BAC
172	NUCOR STEEL ARKANSAS	09/01/2021	3/4/2022 SN-202, 203, 204 Pickle Line Boilers	0	Good Combustion Practice	0.0055 LB/MMBTU	BAG
171	NUCOR STEEL ARKANSAS	02/14/2019	9/10/2021 SN-142 Vacuum Degasser Boiler	50.4 MMBTU/hr	Good combustion practices	0.0026 LB/HR	BAG
0171	NUCOR STEEL ARKANSAS	02/14/2019	9/10/2021 SN-233 Galvanizing Line Boilers	15 MMBTU/hr each	Good combustion practices	0.0055 LB/MMBTU	BAC
1447	LBWLERICKSON STATION	01/07/2021	9/10/2021 EUAUXBOILERnat gas fired auxiliary boiler	50 MMBTU/H	Good combustion practices	0.3 LB/H	BAC
	BIG RIVER STEEL LLC	03/17/2021					BAC
0168			5/26/2021 Galvanizing Line #2 Furnace	150.5 MMBtu/hr	Combustion of Natural gas and Good Combustion Practic	0.0054 LB/MMBTU	
0168	BIG RIVER STEEL LLC	03/17/2021	5/26/2021 Decarburizing Line Furnace Section	58 MMBtu/hr	Combustion of Natural gas and Good Combustion Practic	0.0054 LB/MMBTU	BAC
324	MIDWEST FERTILIZER COMPANY LLC	05/06/2022	8/16/2022 startup heater EU-002	33.34 MMBtu/hr	shall combust natural gas, good combustion practices	200 HR/YR	BAC
115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Cold Mill Complex Makeup Air Units (EP 21-19)	40 MMBtu/hr, total	The permittee must develop a Good Combustion and Op	5.5 LB/MMSCF	BAG
115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Vacuum Degasser Boiler (EP 20-13)	50.4 MMBtu/hr	The permittee must develop a Good Combustion and Op	5.5 LB/MMSCF	BAC
115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Pickle Line #2 – Boiler #1 & #2 (EP 21-04 & EP 21-0	18 MMBtu/hr, each	The permittee must develop a Good Combustion and Op	5.5 LB/MMSCF	BAC
115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Alkali Cleaning Section Heater (EP 21-07B)	23 MMBtu/hr	The permittee must develop a Good Combustion and Op	5.5 LB/MMSCF	BAC
115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Radiant Tube Furnace (EP 21-08B)	36 MMBtu/hr	The permittee must develop a Good Combustion and Op	5.5 LB/MMSCF	BAC
115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Annealing Furnaces (15) (EP 21-15)	4.8 MMBtu/hr. each	The permittee must develop a Good Combustion and Op	5.5 LB/MMSCF	BAC
115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Preheat Furnace (EP 21-08A)	94 MMBtu/hr		5.5 LB/MMSCF	BAC
					The permittee must develop a Good Combustion and Op		
115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Zinc Pot Preheater (EP 21-09)	3 MMBtu/hr	The permittee must develop a Good Combustion and Op	5.5 LB/MMSCF	BAC
115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Heated Transfer Table Furnace (EP 02-03)	65.5 MMBtu/hr	The permittee must develop a Good Combustion and Op	5.5 LB/MMSCF	BAC
-0445		11/26/2019	12/23/2020 FGFUELHTR (2 fuel pre-heaters)	27 MMBTU/H	Good combustion practices	0.07 LB/H	BAC
085	GAS TREATMENT PLANT	08/13/2020	8/16/2022 Two (2) Buyback Gas Bath Heaters and Three (3) Operations Ca	32 MMBtu/hr	Good Combustion Practices, Clean Fuels, and Limited Op	0.0057 LB/MMBTU	BAG
110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 15-01 - Natural Gas Direct-Fired Space Heaters, Process Wat	40 MMBtu/hr, combined	This EP is required to have a Good Combustion and Oper	5.5 LB/MMSCF	BAG
110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 05-01 - Group 1 Car Bottom Furnaces #1 - #3	28 MMBtu/hr, each	This EP is required to have a Good Combustion and Oper	5.5 LB/MMSCF	BAG
110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 04-02 - Austenitizing Furnace	54 MMBtu/hr	This EP is required to have a Good Combustion and Oper	5.5 LB/MMSCF	BAC
110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 05-02 - Group 2 Car Bottom Furnaces A & B		This EP is required to have a Good Combustion and Oper	5.5 LB/MMSCE	BAG
110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 03-02 - Ingot Car Bottom Furnaces #1-#4	37 MMBtu/hr, each	This EP is required to have a Good Combustion and Oper This EP is required to have a Good Combustion and Oper	5.5 LB/MMSCF	BA
)110	NUCOR STEEL BRANDENBURG	07/23/2020					BAG
			1/25/2021 EP 03-05 - Steckel Mill Coiling Furnaces #1 & amp; #2	17.5 MMBtu/hr, each	This EP is required to have a Good Combustion and Oper	5.5 LB/MMSCF	
L10	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 04-03 - Tempering Furnace	48 MMBtu/hr	This EP is required to have a Good Combustion and Oper	5.5 LB/MMSCF	BA
364	FG LA COMPLEX	01/06/2020	8/9/2021 Hot Oil Heaters 1 and 2	0	Good combustion practices and compliance with the app	4.02 LB/H	BAG
864	FG LA COMPLEX	01/06/2020	8/9/2021 PR Waste Heat Boiler	94 mm btu/h	Good combustion practices and oxidation catalyst	13.37 LB/H	BAG
349	DRIFTWOOD LNG FACILITY	07/10/2018	8/6/2021 Hot Oil Heaters (5)	16.13 mm btu/hr	Good Combustion Practices and Use of low sulfur facility	0.0054 LB/MM BTU	BAG
888	ORANGE POLYETHYLENE PLANT	04/23/2020	11/12/2020 Heaters	100 MMBtu	Good combustion practice and proper design.	0.0054 LB/MMBTU	BAC
381	NORTHSTAR BLUESCOPE STEEL, LLC	09/27/2019	8/9/2021 Tunnel Furnace #2 (P018)	88 MMBTU/H	Use of natural gas, good combustion practices and design	0.48 LB/H	BAC
)442	THOMAS TOWNSHIP ENERGY, LLC	08/21/2019	8/9/2021 FGAUXBOILER	80 MMBTU/H	Good combustion practices.	0.0054 LB/MMBTU	BAC
)442 )442	THOMAS TOWNSHIP ENERGY, LLC		8/9/2021 FGAOXBOILER 8/9/2021 FGPREHEAT	7 MMBTU/H		0.0054 LB/MIMBTU 0.025 LB/MMBTU	BAC
		08/21/2019			Good combustion practices		
877	SWEENY REFINERY	01/08/2020	11/12/2020 Isostripper Reboiler (heater)	0	Good combustion practices, use of natural gas fuel for th	0.0054 LB/MMBTU	LAE
441	LBWLERICKSON STATION	12/21/2018	8/9/2021 EUAUXBOILERnatural gas fired auxiliary boiler rated at <= 9	99 MMBTU/H	Good combustion practices.	0.5 LB/H	BAG
440	MICHIGAN STATE UNIVERSITY	05/22/2019	8/9/2021 FGFUELHEATERS	25 MMBTU/H	Good combustion practices	0.005 LB/MMBTU	BAC
289	GEORGIA-PACIFIC CONSUMER PRODUCTS LLC	04/01/2019	3/8/2022 B98 & amp; B99 Natural Gas Fired Temporary Boilers	95 mmBTU/hr	Good Combustion Practices	0.0055 LB/MMBTU	BAG
292	GREEN BAY PACKAGING INC. â€"MILL DIVISION	04/01/2019	2/11/2022 P44 Space Heaters	20 mmBTU/hr	Good Combustion Practices, the Use of Low-NOx Burners	0.0055 LB/MMBTU	BAG
	SIO INTERNATIONAL WISCONSIN, INCENERGY PLANT	04/24/2018	3/8/2022 B13-B24 & amp; B25-B36 Natural Gas-Fired Boilers	28 mmBTU	Ultra-Low NOx Burners, Flue Gas Recirculation, and Good	0.0036 LB/MMBTU	BAG
)284							

# Table C-23. RBLC VOC Summary for External Combustion Devices <100 MMBtu/hr, Natural Gas-Fired

		Permit	Date Last				
BLCID	Facility Name	Issuance Date	e Updated Process Name	Throughput	Control Method Description	Emission Limit	BASIS
R-0159	BIG RIVER STEEL LLC	04/05/2019	11/10/2020 BOILER, PICKLE LINE	0	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	0.0054 LB/MMBTU	BACT-PSD
R-0159	BIG RIVER STEEL LLC	04/05/2019	11/10/2020 PREHEATERS, GALVANIZING LINE SN-28 and SN-29	0	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	0.0054 LB/MMBTU	BACT-PSD
R-0159	BIG RIVER STEEL LLC	04/05/2019	11/10/2020 BOILER, ANNEALING PICKLE LINE	0	Combustion of Natural gas and Good Combustion Practic	0.0054 LB/MMBTU	BACT-PSD
R-0159	BIG RIVER STEEL LLC	04/05/2019	11/10/2020 BOILERS SN-26 AND SN-27, GALVANIZING LINE	0	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	0.0054 LB/MMBTU	BACT-PSD
2-0193	MERCEDES BENZ VANS, LLC	04/15/2016	9/10/2021 Energy Center Boilers	14.27 MMBTU/hr	Annual tune ups per 40 CFR 63.7540(a)(10) are required.	5.5 LB/MMSCF	BACT-PSD
C-0192	CANFOR SOUTHERN PINE - CONWAY MILL	05/21/2019	6/3/2019 Boiler No. 2	0	Work Practice Standards	0.0054 LB/MMBTU	BACT-PSD
0H-0377	HARRISON POWER	04/19/2018	6/19/2019 Auxiliary Boiler (B001)	44.55 MMBTU/H	Good combustion practices	0.16 LB/H	BACT-PSD
DH-0377	HARRISON POWER	04/19/2018	6/19/2019 Auxiliary Boiler (B002)	80 MMBTU/H	Good combustion practices	0.248 LB/H	BACT-PSD
DH-0375	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	11/07/2017	6/19/2019 Auxiliary Boiler (B001)	26.8 MMBTU/H	Good combustion controls	0.13 LB/H	BACT-PSD
DH-0375 DH-0374	GUERNSEY POWER STATION LLC	10/23/2017	6/19/2019 Fuel Gas Heaters (2 identical, P007 and P008)	15 MMBTU/H	Combustion control	0.15 LB/H	BACT-PSD BACT-PSD
DH-0372	OREGON ENERGY CENTER	09/27/2017	6/19/2019 Auxiliary Boiler (B001)	37.8 MMBTU/H	good combustion controls	0.23 LB/H	BACT-PSD
DH-0370	TRUMBULL ENERGY CENTER	09/07/2017	6/19/2019 Auxiliary Boiler (B001)	37.8 MMBTU/H	Good combustion controls	0.23 LB/H	BACT-PSD
DH-0368	PALLAS NITROGEN LLC	04/19/2017	6/19/2019 Startup Heater (B001)	100 MMBTU/H	Good combustion control (i.e., high temperatures, suffici	0.54 LB/H	BACT-PSD
DH-0367	SOUTH FIELD ENERGY LLC	09/23/2016	6/19/2019 Auxiliary Boiler (B001)	99 MMBTU/H	Good combustion controls and natural gas/ultra low sulf	0.59 LB/H	BACT-PSD
DH-0366	CLEAN ENERGY FUTURE - LORDSTOWN, LLC	08/25/2015	6/19/2019 Auxiliary Boiler (B001)	34 MMBTU/H	Good combustion controls	0.2 LB/H	BACT-PSD
NI-0266	GREEN BAY PACKAGING, INC SHIPPING CONTAINER DIVISION	N 09/06/2018	2/19/2019 Natural gas-fied boiler (Boiler B01)	35 mmBtu/hr	Good combustion practices, use only natural gas, equip t	0.0055 LB/MMBTU	BACT-PSD
X-0851	RIO BRAVO PIPELINE FACILITY	12/17/2018	2/19/2019 Thermal Oxidizer	71.3 MMBTU/HR	Natural Gas / Clean Fuel, good combustion practices.	0.0054 LB/MMBTU	BACT-PSD
PA-0316	RENOVO ENERGY CENTER, LLC	01/26/2018	3/26/2019 Auxiliary Boiler	118800 MMBtu/12 month		0.005 LB	N/A
WV-0032	BROOKE COUNTY POWER PLANT	09/18/2018	6/28/2022 Auxiliary Boiler	111.9 mmBtu/hr	Use of Natural Gas, Good Combustion Practices	0.9 LB/HR	BACT-PSD
L-0127	WINPAK HEAT SEAL CORPORATION	10/05/2018	2/19/2019 Heating Units	1 mmBtu/hr	Units shall be operated in accordance with good combus	0	BACT-PSD
AR-0155	BIG RIVER STEEL LLC	11/07/2018	6/19/2019 BOILER, PICKLE LINE	53.7 MMBTU/HR	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	0.0054 LB/MMBTU	BACT-PSD BACT-PSD
AR-0155	BIG RIVER STEEL LLC	11/07/2018	6/19/2019 BOILER SN-26, GALVANIZING LINE	53.7 MMBTU/HR	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	0.054 LB/MMBTU	BACT-PSD
AR-0155	BIG RIVER STEEL LLC	11/07/2018	6/19/2019 PREHEATER, GALVANIZING LINE SN-28	78.2 MMBTU/HR	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	0.0054 LB/MMBTU	BACT-PSD
vii-0435	BELLE RIVER COMBINED CYCLE POWER PLANT	07/16/2018	2/19/2019 EUAUXBOILER: Auxiliary Boiler	99.9 MMBTU/H	Good combustion practices	0.008 LB/MMBTU	BACT-PSD
vii-0435	BELLE RIVER COMBINED CYCLE POWER PLANT	07/16/2018	2/19/2019 EUFUELHTR1: Natural gas fired fuel heater	20.8 MMBTU/H	Good combustion controls	0.17 LB/H	BACT-PSD
vii-0435	BELLE RIVER COMBINED CYCLE POWER PLANT	07/16/2018	2/19/2019 EUFUELHTR2: Natural gas fired fuel heater	3.8 MMBTU/H	Good combustion controls.	0.03 LB/H	BACT-PSD
vII-0433	MEC NORTH, LLC AND MEC SOUTH LLC	06/29/2018	2/19/2019 EUAUXBOILER (North Plant): Auxiliary Boilder	61.5 MMBTU/H	Good combustion practices.	0.004 LB/MMBTU	BACT-PSD
vII-0433	MEC NORTH, LLC AND MEC SOUTH LLC	06/29/2018	2/19/2019 EUAUXBOILER (South Plant): Auxiliary Boiler	61.5 MMBTU/h	Good combustion practices.	0.004 LB/MMBTU	BACT-PSD
	HARRISON COUNTY POWER PLANT	03/27/2018	6/28/2022 Auxiliary Boiler	77.8 mmBtu/hr	Use of Natural Gas, Good Combustion Practices	0.62 LB/HR	BACT-PSD
N-0285	WHITING CLEAN ENERGY, INC.	08/02/2017	6/15/2018 Space Heaters	0		0.0053 LB/MMBTU	LAFR
1-0364	SEMINOLE GENERATING STATION			0		0.005 LB/MMBTU	BACT-PSD
		03/21/2018	5/11/2018 Two natural gas heaters (&It 10 MMBtu/hr each)	9.9 MMBtu/hr			
AL-0312	BELK CHIP-N-SAW FACILITY	05/26/2016	11/30/2017 60 MMBTU/HR NATURAL GAS-FIRED BOILER (ES-008)	60 MMBTU/H	GOOD COMBUSTION PRACTICES	0.0054 LB/MMBTU INPUT	BACT-PSD
VY-0104	CPV VALLEY ENERGY CENTER	08/01/2013	9/28/2017 Auxiliary boiler	0	Good combustion practice.	0.0038 LB/MMBTU	LAER
VY-0103	CRICKET VALLEY ENERGY CENTER	02/03/2016	9/28/2017 Auxiliary boiler	60 MMBTU/H	good combustion practice	0.0015 LB/MMBTU	LAER
vii-0425	GRAYLING PARTICLEBOARD	05/09/2017	11/15/2017 EUTOH in FGTOH	38 MMBTU/H	Good design and operating/combustion practices.	0.0054 LB/MMBTU	BACT-PSD
vii-0425	GRAYLING PARTICLEBOARD	05/09/2017	11/15/2017 EUFLTOS1 in FGTOH	10.2 MMBTU/H	Good design and operating/combustion practices.	0.0054 LB/MMBTU	BACT-PSD
PA-0311	MOXIE FREEDOM GENERATION PLANT	09/01/2015	12/21/2018 Auxilary Boiler	55.4 MMBtu/hr		0.005 LB/MMBTU	LAER
vI-0424	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	12/05/2016	3/8/2018 EUFUELHTR (Fuel pre-heater)	3.7 MMBTU/H	Good combustion practices.	0.03 LB/H	BACT-PSD
vii-0424	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	12/05/2016	3/8/2018 EUAUXBOILER (Auxiliary boiler)	83.5 MMBTU/H	Good combustion practices.	0.008 LB/MMBTU	BACT-PSD
/A-0327	PERDUE GRAIN AND OILSEED, LLC	07/12/2017	11/2/2017 (4) 27 MMBtu/hr boilers, Natural gas and No. 2 fuel oi	0		0.1 LB/HR	BACT-PSD
PA-0309	LACKAWANNA ENERGY CTR/JESSUP	12/23/2015	12/21/2018 Auxillary Boiler	13.31 MMBtu/hr			LAER
						0.005 LB/MMBTU	
PA-0310	CPV FAIRVIEW ENERGY CENTER	09/02/2016	12/21/2018 Auxilary boiler	92.4 MMBtu/hr	ULSD and good combustion practices	0.004 LB/MMBTU	LAER
C-0179	CAROLINA PARTICLEBOARD	03/18/2015	8/23/2017 THERMAL OIL HEATER #2	1.83 MMBTU/H	NATURAL GAS USAGE AND GOOD COMBUSTION PRACTIC	0.01 LB/H	BACT-PSD
N-0263	MIDWEST FERTILIZER COMPANY LLC	03/23/2017	8/22/2017 STARTUP HEATER EU-002	70 MMBTU/HR	GOOD COMBUSTION PRACTICES	0.378 LB/H	BACT-PSD
PA-0307	YORK ENERGY CENTER BLOCK 2 ELECTRICITY GENERATION PRO	0106/15/2015	12/21/2018 Auxilary Boiler	62.04 MCF/hr	Good combustion practices and FGR	0.004 LB/MMBTU	LAER
vii-0423	INDECK NILES, LLC	01/04/2017	3/8/2018 FGFUELHTR (Two fuel pre-heaters identified as EUFUELHTR1 &	27 MMBTU/H	Good combustion practices.	0.15 LB/H	BACT-PSD
(S-0030	MID-KANSAS ELECTRIC COMPANY, LLC - RUBART STATION	03/31/2016	3/1/2023 Indirect fuel-gas heater	2 mmBTU/hr		0.011 LB/H	BACT-PSD
LA-0315	G2G PLANT	05/23/2014	4/5/2021 Reactor Charge Heater - 53B001	10.1 MMBTU/HR	Combustion controls (proper burner design and operatio	0.05 LB/H	BACT-PSD
LA-0315	G2G PLANT	05/23/2014	4/5/2021 Regeneraton Heater - 51B001	61 MMBTU/HR	Combustion controls (proper burner design and operatio	0.33 LB/H	BACT-PSD
LA-0315	G2G PLANT	05/23/2014	4/5/2021 Recycle Gas Heater - 51B002A	33 MMBTU/HR	Combustion controls (proper burner design and operatio	0.18 LB/H	BACT-PSD
LA-0315	G2G PLANT			33 MMBTU/HR		0.18 LB/H	BACT-PSD BACT-PSD
		05/23/2014	4/5/2021 Recycle Gas Heater - 5180028		Combustion controls (proper burner design and operatio		
LA-0315	G2G PLANT	05/23/2014	4/5/2021 Recycle Gas Heater - 51B002C	33 MMBTU/HR	Combustion controls (proper burner design and operatio	0.18 LB/H	BACT-PSD
'LA-0315	G2G PLANT	05/23/2014	4/5/2021 Recycle Gas Heater - 51B002D	33 MMBTU/HR	Combustion controls (proper burner design and operatio	0.18 LB/H	BACT-PSD
'LA-0315	G2G PLANT	05/23/2014	4/5/2021 Recycle Gas Heater - 51B002E	33 MMBTU/HR	Combustion controls (proper burner design and operatio	0.18 LB/H	BACT-PSD
A-0307	MAGNOLIA LNG FACILITY	03/21/2016	4/28/2017 Regenerative Heaters	7.37 mm btu/hr	good combustion practices	0	BACT-PSD
vI-0421	GRAYLING PARTICLEBOARD	08/26/2016	7/20/2017 EUFLTOS1 in FGTOH (Thermal Oil System for Thermally Fused Li	34 MMBTU/H	Good design and operating/combustion practices.	0.0054 LB/MMBTU	BACT-PSD
vI-0421	GRAYLING PARTICLEBOARD	08/26/2016	7/20/2017 EUTOH (In FGTOH)Thermal Oil Heater	34 MMBTU/H	Good design and operating/combustion practices.	0.0054 LB/MMBTU	BACT-PSD
X-0813	ODESSA PETROCHEMICAL PLANT	11/22/2016	11/16/2017 small Boiler	39.9 MMBtu/hr	best combustion practices	0.0005 MMBTU/HR	BACT-PSD
AR-0140	BIG RIVER STEEL LLC	09/18/2013	12/13/2016 BOILERS SN-26 AND 27, GALVANIZING LINE	24.5 MMBTU/H	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	0.0054 LB/MMBTU	BACT-PSD
AR-0140	BIG RIVER STEEL LLC	09/18/2013	12/13/2016 FURNACES SN-40 AND SN-42, DECARBURIZING LINE	22 MMBTU/H	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIC	0.0054 LB/MMBTU	BACT-PSD BACT-PSD
J-0085	MIDDLESEX ENERGY CENTER, LLC	07/19/2016	11/3/2016 AUXILIARY BOILER	4000 H/YR	USE OF NATURAL GAS A CLEAN BURNING FUEL AND GOC	0.488 LB/H	LAER
NJ-0084	PSEG FOSSIL LLC SEWAREN GENERATING STATION	03/10/2016	4/17/2018 Auxiliary Boiler firing natural gas	687 MMCFT/YR	Use of good combustion practices and use of natural gas	0.32 LB/H	LAER
AL-0307	ALLOYS PLANT	10/09/2015	11/30/2017 PACKAGE BOILER	17.5 MMBTU/H	GCP	0.006 LB/MMBTU	BACT-PSD
L-0307	ALLOYS PLANT	10/09/2015	11/30/2017 2 CALP LINE BOILERS	24.59 MMBTU/H	GCP	0.006 LB/MMBTU	BACT-PSD
L-0307	CMC STEEL OKLAHOMA	01/19/2016	7/7/2016 Heaters (Gas-Fired)	0	Natural Gas Fuel.	0.0055 LB/MMBTU	BACT-PSD
0K-0173		11/05/2012	4/1/2019 Auxiliary Boiler (B001)	99 MMRtu/H	Good combustion practices and using combustion optimi	0.59 IB/H	BACT-PSD
OK-0173 OH-0360	CARROLL COUNTY ENERGY	11/05/2013	4/1/2019 Auxiliary Boiler (B001)	99 MMBtu/H	Good combustion practices and using combustion optimi	0.59 LB/H	BACT-PSD
OK-0173		11/05/2013 10/31/2014 11/13/2015	4/1/2019 Auxiliary Boiler (8001) 5/13/2016 AUXILIARY BOILER 5/13/2016 AUXILIARY BOILER	99 MMBtu/H 93 MMBTU/H 42 MMBTU/H	Good combustion practices and using combustion optimi EFFICIENT BOILER DESIGN, EXCLUSIVE USE OF PIPELINE Q EXCLUSIVE USE OF NATURAL GAS, AND GOOD COMBUST	0.59 LB/H 0.002 LB/MMBTU 0.003 LB/MMBTU	BACT-PSD LAER LAER

# Table C-23. RBLC VOC Summary for External Combustion Devices <100 MMBtu/hr, Natural Gas-Fired

		Permit	Date Last				
RBLCID	Facility Name	Issuance Date	Updated Process Name	Throughput	Control Method Description	Emission Limit	BASIS
TX-0772	PORT OF BEAUMONT PETROLEUM TRANSLOAD TERMINAL	PBP 11/06/2015	7/6/2016 Commercial/Institutional-Size Boilers/Furnaces	95.7 MMBTU/H	Good combustion practice to ensure complete combustic	5.42 T/YR	BACT-PSD
TX-0772	PORT OF BEAUMONT PETROLEUM TRANSLOAD TERMINAL	PBP 11/06/2015	7/6/2016 Commercial/Institutional-Size Boilers/Furnaces	13.2 MMBTU/H	Good combustion practice to ensure complete combustic	0.3 T/YR	BACT-PSD
OK-0164	MIDWEST CITY AIR DEPOT	01/08/2015	7/6/2016 Heaters/Boilers	0 MMBTUH	1. Use pipeline-quality natural gas.2. Good Combustion P	7.1 TONS PER YEAR	BACT-PSD
MD-0042	WILDCAT POINT GENERATION FACILITY	04/08/2014	8/12/2020 AUXILLARY BOILER	45 MMBTU/H	THE EXCLUSIVE USE OF PIPELINE QUALITY NATURAL GAS,	0.0033 LB/MMBTU	LAER
MD-0041	CPV ST. CHARLES	04/23/2014	4/26/2018 AUXILLARY BOILER	93 MMBTU/H	EXCLUSIVE USE OF NATURAL GAS, AND GOOD COMBUST	0.002 LB/MMBTU	LAER
TX-0751	EAGLE MOUNTAIN STEAM ELECTRIC STATION	06/18/2015	7/6/2016 Commercial/Institutional Size Boilers (<100 MMBtu) – natı	73.3 MMBTU/H		4 PPM	LAER
AL-0282	LENZING FIBERS, INC.	01/22/2014	5/9/2016 Natural Gas Fired Boilers (3)	100 mm btu/hr	Good combustion Practices.	0.0054 LB/MMBTU	BACT-PSD
AK-0083	KENAI NITROGEN OPERATIONS	01/06/2015	2/19/2016 Five (5) Waste Heat Boilers	50 MMBTU/H		0.0054 LB/MMBTU	BACT-PSD
MS-0092	EMBERCLEAR GTL MS	05/08/2014	11/7/2016 Regeneration Heater, methanol to gasoline	13 MMBTU/H		0	BACT-PSD
MS-0092	EMBERCLEAR GTL MS	05/08/2014	11/7/2016 Reactor Heater, 5	12 MMBTU/H		0	BACT-PSD
OR-0050	TROUTDALE ENERGY CENTER, LLC	03/05/2014	5/5/2016 Auxiliary boiler	39.8 MMBTU/H	Utilize Low-NOx burners and FGR.	0.005 LB/MMBTU	BACT-PSD
MA-0039	SALEM HARBOR STATION REDEVELOPMENT	01/30/2014	5/5/2016 Auxiliary Boiler	80 MMBTU/H	oxidation catalyst	11.8 PPMVD@3% O2	OTHER CASE
MI-0412	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	12/04/2013	5/5/2016 Fuel pre-heater (EUFUELHTR)	3.7 MMBTU/H	Good combustion practices	0.03 LB/H	BACT-PSD
MI-0412	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	12/04/2013	5/5/2016 Auxiliary Boiler B (EUAUXBOILERB)	95 MMBTU/H	Good combustion practices	0.008 LB/MMBTU	BACT-PSD
MI-0412	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	12/04/2013	5/5/2016 Auxiliary Boiler A (EUAUXBOILERA)	55 MMBTU/H	Good combustion control	0.008 LB/MMBTU	BACT-PSD
MI-0410	THETFORD GENERATING STATION	07/25/2013	5/4/2016 FGAUXBOILERS: Two auxiliary boilers < 100 MMBTU/H heat	100 MMBTU/H heat in	put «Efficient combustion; natural gas fuel.	0.008 LB/MMBTU	BACT-PSD
OK-0156	NORTHSTAR AGRI IND ENID	07/31/2013	5/11/2018 Gas-fired Boiler	95 MMBTUH	Good Combustion	0.006 LB/MMBTU	BACT-PSD
OK-0156	NORTHSTAR AGRI IND ENID	07/31/2013	5/11/2018 Refinery Boiler	5 MMBTUH	Good Combustion	0.0054 LB/MMBTU	N/A
WY-0075	CHEYENNE PRAIRIE GENERATING STATION	07/16/2014	5/11/2018 Auxiliary Boiler	25.06 MMBtu/h	good combustion practices	0.0017 LB/MMBTU	BACT-PSD
TX-0656	GAS TO GASOLINE PLANT	05/16/2014	5/12/2016 Heaters	45 MMBTU/H	clean fuel and good combustion practices	0.59 T/YR	BACT-PSD
TX-0656	GAS TO GASOLINE PLANT	05/16/2014	5/12/2016 heaters (5)	24.3 MMBTU/H	clean fuel and good combustion practices	2.44 T/YR	BACT-PSD
PA-0296	BERKS HOLLOW ENERGY ASSOC LLC/ONTELAUNEE	12/17/2013	3/2/2020 Auxiliary Boiler	40 MMBTU/H		0.14 T/YR	N/A
IA-0107	MARSHALLTOWN GENERATING STATION	04/14/2014	5/4/2016 auxiliary boiler	60.1 mmBtu/hr		0.005 LB/MMBTU	BACT-PSD
MI-0406	RENAISSANCE POWER LLC	11/01/2013	7/7/2016 FG-AUXBOILER1-2; Two (2) natural gas-fired auxiliary boilers.	40 MMBTU/H	Good combustion practices.	0.005 LB/MMBTU	BACT-PSD
LA-0272	AMMONIA PRODUCTION FACILITY	03/27/2013	5/4/2016 AMMONIA START-UP HEATER (102-B)	59.4 MM BTU/HR	GOOD COMBUSTION PRACTICES: PROPER DESIGN OF BUF	0.38 LB/H	BACT-PSD
OH-0355	GENERAL ELECTRIC AVIATION, EVENDALE PLANT	05/07/2013	5/4/2016 4 Indirect-Fired Air Preheaters	0		0.005 LB/MMBTU	N/A
SC-0149	KLAUSNER HOLDING USA, INC	01/03/2013	8/27/2014 NATURAL GAS BOILER EU004	46 MMBTU/H		0.003 LB/MMBTU	OTHER CASE
SC-0149	KLAUSNER HOLDING USA, INC	01/03/2013	8/27/2014 NATURAL GAS BOILER EU005	46 MMBTU/H		0.003 LB/MMBTU	OTHER CASE
SC-0149	KLAUSNER HOLDING USA, INC	01/03/2013	8/27/2014 NATURAL GAS BOILER EU006	46 MMBTU/H		0.003 LB/MMBTU	OTHER CASE
PA-0291	HICKORY RUN ENERGY STATION	04/23/2013	3/2/2020 AUXILIARY BOILER	40 MMBTU/H		0.0015 LB/MMBTU	OTHER CASE
IA-0106	CF INDUSTRIES NITROGEN, LLC - PORT NEAL NITROGEN CON	MPLI07/12/2013	5/4/2016 Startup Heater	58.8 MMBTU/H	good operating practices & use of natural gas	0.0014 LB/MMBTU	BACT-PSD
OH-0352	OREGON CLEAN ENERGY CENTER	06/18/2013	5/4/2016 Auxillary Boiler	99 MMBtu/H	Good combustion practices and using combustion optimi	0.59 LB/H	BACT-PSD
VA-0321	BRUNSWICK COUNTY POWER STATION	03/12/2013	6/19/2019 AUXILIARY BOILER	66.7 MMBTU/H	Clean fuel and good combustion practices	0.005 LB/MMBTU	BACT-PSD

# Table C-24. RBLC GHG Summary for External Combustion Devices <100 MMBtu/hr, Natural Gas-Fired

RBLCID	Facility Name	Permit Issuance Date	Date Last Updated Process Name	Throughput	Control Method Description	Emission Limit	BASIS
IN-0359	NUCOR STEEL	03/30/2023	5/23/2023 Boiler (CC-BOIL)	50 MMBtu/hr	energy efficiency measures and only pipeline quality natu	117.1 LB/MMBTU	BACT-PSD
IN-0359	NUCOR STEEL	03/30/2023	5/23/2023 Hot Water Circuit Burner for Galvanizing Line	9 MMBtu/hr	good combustion practices and only pipeline quality natu	117.1 LB/MMBTU	BACT-PSD
IN-0359	NUCOR STEEL	03/30/2023	5/23/2023 Hot Water Circuit Burner for Sheet Metal Coating Line	5.12 MMBtu/hr	good combustion practices and only pipeline quality natu	2625 TONS/YR	BACT-PSD
LA-0391	MAGNOLIA POWER GENERATING STATION UNIT 1	06/03/2022	5/23/2023 Auxiliary Boiler	80 mm BTU/h	Good combustion practices; compliance with 40 CFR 63 5	117 LB/MM BTU	BACT-PSD
KY-0116	NOVELIS CORPORATION - GUTHRIE	07/25/2022	4/25/2023 EU 037 - Sow Dryer	20 MMBtu/hr	Design Requirements, Good Combustion & Operation Pra	10258 TONS/YR	BACT-PSD
KY-0116	NOVELIS CORPORATION - GUTHRIE	07/25/2022	4/25/2023 EU 041a - Direct-Fired Building Heating Systems	53 MMBtu/hr (total)	Design Requirements, Good Combustion & Operation Pra	27890 TONS/YR	BACT-PSD
KY-0116	NOVELIS CORPORATION - GUTHRIE	07/25/2022	4/25/2023 EU 041b - Indirect-Fired Building Heating Systems a8% # 1 MMB	3 MMBtu/hr (total)	Design Requirements, Good Combustion & Operation Pra	1579 TONS/YR	BACT-PSD
KY-0116	NOVELIS CORPORATION - GUTHRIE	07/25/2022	4/25/2023 EU 041c - Indirect-Fired Building Heating Systems > 1 MMBt	19.2 MMBtu/hr (total)	Design Requirements, Good Combustion & Operation Pra	10104 TONS/YR	BACT-PSD
MI-0454	LBWL-ERICKSON STATION	12/20/2022	5/23/2023 EUAUXBOILERnatural-gas fired auxiliary boiler, rated at less th	50 MMBTU/H	Low carbon fuel (pipeline quality natural gas), good comi	25644 T/YR	BACT-PSD
MI-0452	MEC SOUTH, LLC	06/23/2022	4/25/2023 EUAUXBOILER (South Plant): Auxiliary Boiler	61.5 MMBTU/H	Energy Efficiency Measures and the use of a low carbon f	31540 T/YR	BACT-PSD
MI-0451	MEC NORTH, LLC	06/23/2022	4/25/2023 EUAUXBOILER (North Plant): Auxiliary Boiler	61.5 MMBTU/H	Energy efficiency measures and the use of a low carbon f	31540 T/YR	BACT-PSD
IL-0133	LINCOLN LAND ENERGY CENTER	07/29/2022	12/6/2022 Auxiliary Boiler	80 mmBtu/hour	Good combustion practices.	5059 TONS/YEAR	BACT-PSD
WI-0306	WPL- RIVERSIDE ENERGY CENTER	02/28/2020	9/16/2022 Temporary Boiler (B98A)	14.67 MMBTU/H	Combust only pipeline quality natural gas.	118 LB CO2/MMBTU	BACT-PSD
WI-0305	WPL- RIVERSIDE ENERGY CENTER	01/22/2021	9/16/2022 Natural Gas Auxiliary Boiler (B22)	83.5 MMBTU/H	Combust only pipeline quality natural gas.	157 LB CO2/MMBTU	BACT-PSD
WI-0303	GREEN BAY PACKAGING INC GB MILL DIV.	07/14/2020	9/16/2022 Natural Gas-Fired Boiler (B01)	32.7 MMBTU/H	Only burn natural gas, good combustion practices, low N	16771 T/Y	BACT-PSD
WI-0300	NEMADII TRAIL ENERGY CENTER	09/01/2020	9/16/2022 Natural Gas-Fired Auxiliary Boiler (B02)	100 MMBTU/H	Ultra-low NOx burners and flue gas recirculation. Operate	160 LB/MMBTU	BACT-PSD
WI-0297	GREEN BAY PACKAGING- MILL DIVISION	12/10/2019	9/16/2022 Natural Gas-Fired Space Heaters (P44)	8.5 MMBtu/H	Use only natural gas.	90 % AVG THERM EFF	BACT-PSD
TX-0939	ORANGE COUNTY ADVANCED POWER STATION	03/13/2023	5/23/2023 Water Bath Heater	16.8 MMBTU/HR	Good combustion practices	0	BACT-PSD
AR-0173	BIG RIVER STEEL LLC	01/31/2022	3/4/2022 Hydrogen Plant #2 Reformer Furnace	75 MMBtu/hr	Good Operating Practices	117 LB/MMBTU	BACT-PSD BACT-PSD
AR-0173	BIG RIVER STEEL LLC	01/31/2022	3/4/2022 Pickle Line Boiler	53.7 MMBtu/hr	Good operating practices Minimum Boiler Efficiency	117 LB/MMBTU	BACT-PSD
AR-0173	BIG RIVER STELL LLC	01/31/2022	3/4/2022 Fickle Line Boilers #1 and #2	53.7 MMBtu/hr	Good operating practices/Minimum Boiler Efficiency	117 LB/MMBTU	BACT-PSD BACT-PSD
AR-0175 AR-0173	BIG RIVER STEEL LLC			53.7 MMBtu/hr		117 LB/MMBTU	BACT-PSD BACT-PSD
AR-0173 MI-0448		01/31/2022	3/4/2022 Pickle Galvanizing Line Boiler		Good operating practices	· · ·	
1111 0 1 10	GRAYLING PARTICLEBOARD	12/18/2020	8/16/2022 Thermal oil heater (EUTOH in FGTOH)	38 MMBTU/H	Good combustion and maintenance practices, natural ga	19490 T/YR	BACT-PSD
MI-0448	GRAYLING PARTICLEBOARD	12/18/2020	8/16/2022 Thermal oil system for thermally fused lamination lines (EUFLT)	10.2 MMBTU/H	Good Combustion and Maintenance Practices, Natural G	5254 T/YR	BACT-PSD
AL-0328	PLANT BARRY	11/09/2020	3/4/2022 90.5 MMBtu/hr Aux Boiler	90.5 MMBtu/hr		46416 TPY	BACT-PSD
AL-0329	COLBERT COMBUSTION TURBINE PLANT	09/21/2021	3/4/2022 Three Gas Heaters	10 MMBtu/hr		117.1 LB/MMBTU	BACT-PSD
AR-0172	NUCOR STEEL ARKANSAS	09/01/2021	3/4/2022 SN-202, 203, 204 Pickle Line Boilers	0	Good Combustion Practice	121 LB/MMBTU	BACT-PSD
AR-0171	NUCOR STEEL ARKANSAS	02/14/2019	9/10/2021 SN-142 Vacuum Degasser Boiler	50.4 MMBTU/hr	Good combustion practices	121 LB/MMBTU	BACT-PSD
AR-0171	NUCOR STEEL ARKANSAS	02/14/2019	9/10/2021 SN-233 Galvanizing Line Boilers	15 MMBTU/hr each	Good combustion practices	121 LB/MMBTU	BACT-PSD
MI-0447	LBWLERICKSON STATION	01/07/2021	9/10/2021 EUAUXBOILERnat gas fired auxiliary boiler	50 MMBTU/H	Low carbon fuel (pipeline quality natural gas), good comi	25644 T/YR	BACT-PSD
IN-0324	MIDWEST FERTILIZER COMPANY LLC	05/06/2022	8/16/2022 startup heater EU-002	33.34 MMBtu/hr	shall combust natural gas, shall be controlled by good co	200 HR/YR	BACT-PSD
VA-0333	NORFOLK NAVAL SHIPYARD	12/09/2020	3/8/2022 Three (3) boilers	76.6 MMBtu/hr		117.1 LB	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Cold Mill Complex Makeup Air Units (EP 21-19)	40 MMBtu/hr, total	The permittee must develop a Good Combustion and Op	20734 TONS/YR	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Vacuum Degasser Boiler (EP 20-13)	50.4 MMBtu/hr	The permittee must develop a Good Combustion and Op	26125 TONS/YR	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Pickle Line #2 â€" Boiler #1 & #2 (EP 21-04 & EP 21-0	18 MMBtu/hr, each	The permittee must develop a Good Combustion and Op	12675 TONS/YR	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Alkali Cleaning Section Heater (EP 21-07B)	23 MMBtu/hr	The permittee must develop a Good Combustion and Op	11922 TONS/YR	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Radiant Tube Furnace (EP 21-08B)	36 MMBtu/hr	The permittee must develop a Good Combustion and Op	18660 TONS/YR	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Annealing Furnaces (15) (EP 21-15)	4.8 MMBtu/hr, each	The permittee must develop a Good Combustion and Op	37581 TONS/YR	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Preheat Furnace (EP 21-08A)	94 MMBtu/hr	The permittee must develop a Good Combustion and Op	48725 TONS/YR	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Zinc Pot Preheater (EP 21-09)	3 MMBtu/hr	The permittee must develop a Good Combustion and Op	30 TONS/YR	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Heated Transfer Table Furnace (EP 02-03)	65.5 MMBtu/hr	The permittee must develop a Good Combustion and Op	33952 TONS/YR	BACT-PSD
*MI-0445	INDECK NILES, LLC	11/26/2019	12/23/2020 FGFUELHTR (2 fuel pre-heaters)	27 MMBTU/H	Energy Efficiency Measures and the use of a low carbon f	13848 T/YR	BACT-PSD
AK-0085	GAS TREATMENT PLANT	08/13/2020	8/16/2022 Two (2) Buyback Gas Bath Heaters and Three (3) Operations Ca	32 MMBtu/hr	Good Combustion Practices, Clean Fuels, and Limited Op	117.1 LB/MMBTU	BACT-PSD
KY-0085	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 15-01 - Natural Gas Direct-Fired Space Heaters, Process Wat		This EP is required to have a Good Combustion and Oper	20734 TON/YR	BACT-PSD BACT-PSD
KY-0110 KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 05-01 - Group 1 Car Bottom Furnaces #1 - #3	28 MMBtu/hr, each	This EP is required to have a Good Combustion and Oper	43542 TON/YR	BACT-PSD BACT-PSD
KY-0110 KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 04-02 - Austenitizing Furnace	54 MMBtu/hr	This EP is required to have a Good Combustion and Oper	27991 TON/YR	BACT-PSD BACT-PSD
KY-0110 KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 05-02 - Group 2 Car Bottom Furnaces A & B		This EP is required to have a Good Combustion and Oper	31101 TON/YR	BACT-PSD BACT-PSD
KY-0110 KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 03-02 - Ingot Car Bottom Furnaces #1-#4	37 MMBtu/hr, each	This EP is required to have a Good Combustion and Oper	76717 TON/YR	BACT-PSD BACT-PSD
KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 03-05 - Steckel Mill Coiling Furnaces #1 & amp; #2	17.5 MMBtu/hr, each	This EP is required to have a Good Combustion and Oper	18142 TON/YR	BACT-PSD
KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 04-03 - Tempering Furnace	48 MMBtu/hr	This EP is required to have a Good Combustion and Oper	24881 TON/YR	BACT-PSD
LA-0364	FG LA COMPLEX	01/06/2020	8/9/2021 Hot Oil Heaters 1 and 2	0	Use of fuel gas as fuel, energy-efficient design options, ar	5858 TONS/YR	BACT-PSD
LA-0364	FG LA COMPLEX	01/06/2020	8/9/2021 PR Waste Heat Boiler	94 mm btu/h	Use of natural gas or fuel gas as fuel, energy-efficient des	455475 T/YR	BACT-PSD
LA-0349	DRIFTWOOD LNG FACILITY	07/10/2018	8/6/2021 Hot Oil Heaters (5)	16.13 mm btu/hr	Use Low Carbon Fuel, Energy Efficiency Measures, and G	0	BACT-PSD
TX-0888	ORANGE POLYETHYLENE PLANT	04/23/2020	11/12/2020 Heaters	100 MMBtu	Good combustion practice, clean fuel, and proper design	0	BACT-PSD
OH-0381	NORTHSTAR BLUESCOPE STEEL, LLC	09/27/2019	8/9/2021 Tunnel Furnace #2 (P018)	88 MMBTU/H	Use of natural gas and energy efficient design	10283.06 LB/H	BACT-PSD
MI-0442	THOMAS TOWNSHIP ENERGY, LLC	08/21/2019	8/9/2021 FGAUXBOILER	80 MMBTU/H	Energy efficiency	41031 T/YR	BACT-PSD
MI-0442	THOMAS TOWNSHIP ENERGY, LLC	08/21/2019	8/9/2021 FGPREHEAT	7 MMBTU/H	Energy efficiency	3590 T/YR	BACT-PSD
MI-0441	LBWLERICKSON STATION	12/21/2018	8/9/2021 EUAUXBOILERnatural gas fired auxiliary boiler rated at <= 9	99 MMBTU/H	Low carbon fuel (pipeline quality natural gas), good comi	50776 T/YR	BACT-PSD
MI-0440	MICHIGAN STATE UNIVERSITY	05/22/2019	8/9/2021 FGFUELHEATERS	25 MMBTU/H	Utilize low-carbon fuels and implement energy efficiency	12822 T/YR	BACT-PSD
WI-0292	GREEN BAY PACKAGING INC. â€"MILL DIVISION	04/01/2019	2/11/2022 P44 Space Heaters	20 mmBTU/hr	Good Combustion Practices, the Use of Low-NOx Burners	0	BACT-PSD
WI-0284	SIO INTERNATIONAL WISCONSIN, INCENERGY PLANT	04/24/2018	3/8/2022 B13-B24 & amp; B25-B36 Natural Gas-Fired Boilers	28 mmBTU	Ultra-Low NOx Burners, Flue Gas Recirculation, and Gooc	160 LB CO2E/1000LB ST	EANBACT-PSD
WI-0283	AFE, INC. â€"LCM PLANT	04/24/2018	3/8/2022 B01-B12, Boilers	28 mmBTU/hr	Ultra-low NOx Burners, Flue Gas Recirculation, Good Con	160 LB/1000 LB CO2E	BACT-PSD
IL-0130	JACKSON ENERGY CENTER	12/31/2018	4/16/2020 Auxiliary Boiler	96 mmBtu/hr	Good combustion practice	11250 TONS/YEAR	BACT-PSD
OH-0379	PETMIN USA INCORPORATED	02/06/2019	6/19/2019 Startup boiler (B001)	15.17 MMBTU/H	Good combustion practices and the use of natural gas	1784 LB/H	BACT-PSD
OH-0379	PETMIN USA INCORPORATED	02/06/2019	6/19/2019 Ladle Preheaters (P002, P003 and P004)	15 MMBTU/H	Good combustion practices and the use of natural gas	1764 LB/H	BACT-PSD
OH-0373	HARRISON POWER	04/19/2018	6/19/2019 Laule Fiendales (F002, F003 and F004)	44.55 MMBTU/H	Good combustion practices and the use of natural gas	2817.6 T/YR	BACT-PSD BACT-PSD
OH-0377	HARRISON POWER	04/19/2018	6/19/2019 Auxiliary Boiler (B001)	44.55 MMBTU/H 80 MMBTU/H	Good combustion practices and pipeline quality natural g	5009.1 T/YR	BACT-PSD BACT-PSD
OH-0377 OH-0375	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	11/07/2017	6/19/2019 Auxiliary Boller (B002) 6/19/2019 Auxiliary Boller (B001)	26.8 MMBTU/H	Natural gas as the sole fuel	7845 T/YR	BACT-PSD BACT-PSD
OH-0375 OH-0374	GUERNSEY POWER STATION LLC - HANNIBAL POWER						BACT-PSD BACT-PSD
UH-0374	GUERINSET FOWER STATION LLC	10/23/2017	6/19/2019 Fuel Gas Heaters (2 identical, P007 and P008)	15 MMBTU/H	Natural gas, low-emitting fuel	7695 T/YR	BACI-PSD

#### Table C-24. RBLC GHG Summary for External Combustion Devices <100 MMBtu/hr, Natural Gas-Fired

RBLCID	Facility Name	Permit Issuance Date	Date Last Updated Process Name	Throughput	Control Method Description	Emission Limit	BASIS
	,			Throughput			
OH-0372	OREGON ENERGY CENTER	09/27/2017	6/19/2019 Auxiliary Boiler (B001)	37.8 MMBTU/H	use of natural gas, good combustion controls	4502 T/YR	BACT-PSD
OH-0370	TRUMBULL ENERGY CENTER	09/07/2017	6/19/2019 Auxiliary Boiler (B001)	37.8 MMBTU/H	Good combustion controls/natural gas combustion	4456 T/YR	BACT-PSD
DH-0368	PALLAS NITROGEN LLC	04/19/2017	6/19/2019 Startup Heater (B001)	100 MMBTU/H	Good combustion control (i.e., high temperatures, suffici	2840 T/YR	BACT-PSD
OH-0367	SOUTH FIELD ENERGY LLC	09/23/2016	6/19/2019 Auxiliary Boiler (B001)	99 MMBTU/H	Good combustion controls, natural gas combustion, and	32171 T/YR	BACT-PSD
DH-0366	CLEAN ENERGY FUTURE - LORDSTOWN, LLC	08/25/2015	6/19/2019 Auxiliary Boiler (B001)	34 MMBTU/H	Good combustion controls/natural gas combustion	4008 T/YR	BACT-PSD
WI-0266	GREEN BAY PACKAGING, INC SHIPPING CONTAINER DIVISION	09/06/2018	2/19/2019 Natural gas-fied boiler (Boiler B01)	35 mmBtu/hr	Good combustion practices, use only natural gas, equip v	160 LBCO2E/1000 LB STE	ANBACT-PSD
TX-0851	RIO BRAVO PIPELINE FACILITY	12/17/2018	2/19/2019 Thermal Oxidizer	71.3 MMBTU/HR	Natural Gas / Clean Fuel, good combustion practices.	0	BACT-PSD
TX-0845	ARKEMA BEAUMONT PLANT	08/24/2018	2/19/2019 HEATERS	31 BTU/HR	low carbon fuel selection, and good combustion practice	0	BACT-PSD
IL-0129	CPV THREE RIVERS ENERGY CENTER	07/30/2018	2/19/2019 Auxiliary Boiler	96 mmBtu/hr	Good combustion practice	22500 TON/YR	BACT-PSD
	BROOKE COUNTY POWER PLANT	09/18/2018	6/28/2022 Auxiliary Boiler	111.9 mmBtu/hr	Use of Natural Gas	14768 LB/HR	BACT-PSD
	MOCKINGBIRD HILL COMPRESSOR STATION	06/14/2018	6/28/2022 CT-1 & amp; CT-2 - Solar Titan 130 Combustion Turbine/compre	20500 hp	Limited to natural gas.	1.01 LB CO2E/HP	BACT-PSD BACT-PSD
	MOCKINGBIRD HILL COMPRESSOR STATION	06/14/2018	6/28/2022 WH-1 - Boiler	8.72 mmBtu/hr	Limited to natural gas; and tune-up the boiler once every	0	BACT-PSD
MI-0435	BELLE RIVER COMBINED CYCLE POWER PLANT	07/16/2018	2/19/2019 EUAUXBOILER: Auxiliary Boiler	99.9 MMBTU/H	Energy efficiency measures, use of natural gas.	25623 T/YR	BACT-PSD
MI-0435	BELLE RIVER COMBINED CYCLE POWER PLANT	07/16/2018	2/19/2019 EUFUELHTR1: Natural gas fired fuel heater	20.8 MMBTU/H	Natural gas fuel	6310 T/YR	BACT-PSD
MI-0435	BELLE RIVER COMBINED CYCLE POWER PLANT	07/16/2018	2/19/2019 EUFUELHTR2: Natural gas fired fuel heater	3.8 MMBTU/H	Natural gas fuel	6310 T/YR	BACT-PSD
MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	06/29/2018	2/19/2019 EUAUXBOILER (North Plant): Auxiliary Boilder	61.5 MMBTU/H	Energy efficiency measures and the use of a low carbon f	31540 T/YR	BACT-PSD
MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	06/29/2018	2/19/2019 EUAUXBOILER (South Plant): Auxiliary Boiler	61.5 MMBTU/h	Energy efficiency measures and the use of a low carbon f	31540 T/YR	BACT-PSD
*WV-0029	HARRISON COUNTY POWER PLANT	03/27/2018	6/28/2022 Auxiliary Boiler	77.8 mmBtu/hr	Use of Natural Gas	9107 LB/HR	BACT-PSD
MI-0426	DTE GAS COMPANY - MILFORD COMPRESSOR STATION	03/24/2017	3/8/2018 FGAUXBOILERS (6 auxiliary boilers EUAUXBOIL2A, EUAUXBOIL3	3 MMBTU/H	Use of pipeline quality natural gas and energy efficiency r	7324 T/YR	BACT-PSD
NY-0114	SABIC INNOVATIVE PLASTICS US LLC	09/11/2014	9/28/2017 Package boilers	0	BACT Requirements:1) Firing natural gas only.2) Refractor	0	BACT-PSD
NY-0103	CRICKET VALLEY ENERGY CENTER	02/03/2016	9/28/2017 Auxiliary boiler	60 MMBTU/H	good combustion practiced and pipeline quality natural g	119 LB/MMBTU	BACT-PSD
MI-0425	GRAYLING PARTICLEBOARD	05/09/2017	11/15/2017 EUTOH in FGTOH	38 MMBTU/H	Good combustion and maintenance practices, natural ga	19490 T/YR	BACT-PSD
MI-0425	GRAYLING PARTICLEBOARD	05/09/2017	11/15/2017 EUFLTOS1 in FGTOH	10.2 MMBTU/H	Good combustion and maintenance practices, natural ga	5254 T/YR	BACT-PSD BACT-PSD
PA-0311	MOXIE FREEDOM GENERATION PLANT	09/01/2015	12/21/2018 Auxilary Boiler	55.4 MMBtu/hr	dood compusition and maintenance practices, natural ga	13561 TPY	BACT-PSD BACT-PSD
MI-0424	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	12/05/2016	3/8/2018 EUFUELHTR (Fuel pre-heater)	3.7 MMBTU/H	Good combustion practices.	1934 T/YR	BACT-PSD
MI-0424	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	12/05/2016	3/8/2018 EUAUXBOILER (Auxiliary boiler)	83.5 MMBTU/H	Good combustion practices.	43283 T/YR	BACT-PSD
PA-0309	LACKAWANNA ENERGY CTR/JESSUP	12/23/2015	12/21/2018 Auxillary Boiler	13.31 MMBtu/hr		44107 TON	BACT-PSD
MI-0423	INDECK NILES, LLC	01/04/2017	3/8/2018 FGFUELHTR (Two fuel pre-heaters identified as EUFUELHTR1 &	27 MMBTU/H	Energy efficiency measures and the use of a low carbon f	13848 T/YR	BACT-PSD
KS-0029	THE EMPIRE DISTRICT ELECTRIC COMPANY	07/14/2015	6/21/2018 Auxiliary boiler	18.6 MMBTU/HR		9521.5 TONS PER YEAR	BACT-PSD
*LA-0315	G2G PLANT	05/23/2014	4/5/2021 Reactor Charge Heater - 53B001	10.1 MMBTU/HR	Energy Efficiency Measures	0	BACT-PSD
*LA-0315	G2G PLANT	05/23/2014	4/5/2021 Regeneraton Heater - 51B001	61 MMBTU/HR	Energy Efficiency Measures	0	BACT-PSD
*LA-0315	G2G PLANT	05/23/2014	4/5/2021 Recycle Gas Heater - 51B002A	33 MMBTU/HR	Energy Efficiency Measures	0	BACT-PSD
*LA-0315	G2G PLANT	05/23/2014	4/5/2021 Recycle Gas Heater - 51B002B	33 MMBTU/HR	Energy Efficiency Measures	0	BACT-PSD
*LA-0315	G2G PLANT	05/23/2014	4/5/2021 Recycle Gas Heater - 51B002D	33 MMBTU/HR	Energy Efficiency Measures	0	BACT-PSD
*LA-0315	G2G PLANT	05/23/2014	4/5/2021 Recycle Gas Heater - 51B002D	33 MMBTU/HR	Energy Efficiency Measures	0	BACT-PSD BACT-PSD
*LA-0315	G2G PLANT	05/23/2014	4/5/2021 Recycle Gas Heater - 518002D 4/5/2021 Recycle Gas Heater - 518002E	33 MMBTU/HR	Energy Efficiency Measures	0	BACT-PSD BACT-PSD
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LA-0311	DONALDSONVILLE NITROGEN COMPLEX	07/15/2013	4/28/2017 No. 6 Ammonia Plant Start-up Heater (4-13, EQT 158)	94.5 MM Btu/hr	Use of natural gas as fuel, good combustion practices, an	117 LB/MM BTU	BACT-PSD
LA-0307	MAGNOLIA LNG FACILITY	03/21/2016	4/28/2017 Regenerative Heaters	7.37 mm btu/hr	good combustion/operating/maintenance practices and	0	BACT-PSD
LA-0305	LAKE CHARLES METHANOL FACILITY	06/30/2016	4/28/2017 Gasifier Start-up Preheat Burners	23 MM BTU/hr (each)	good equipment design and good combustion practices	0	BACT-PSD
LA-0305	LAKE CHARLES METHANOL FACILITY	06/30/2016	4/28/2017 WSA Preheat Burners	0	good equipment design and good combustion practices	0	BACT-PSD
MI-0421	GRAYLING PARTICLEBOARD	08/26/2016	7/20/2017 EUFLTOS1 in FGTOH (Thermal Oil System for Thermally Fused Li	34 MMBTU/H	Good combustion and maintenance practices. Natural ga	5254 T/YR	BACT-PSD
MI-0421	GRAYLING PARTICLEBOARD	08/26/2016	7/20/2017 EUTOH (In FGTOH)Thermal Oil Heater	34 MMBTU/H	Good combustion and maintenance practices, natural ga	17438 T/YR	BACT-PSD
AR-0140	BIG RIVER STEEL LLC	09/18/2013	12/13/2016 BOILER, PICKLE LINE	67 MMBTU/H	GOOD OPERATING PRACTICESMINIMUM BOILER EFFICIEN	117 LB/MMBTU	BACT-PSD
MI-0420	DTE GAS COMPANYMILFORD COMPRESSOR STATION	06/03/2016	4/28/2017 FGAUXBOILERS	6 MMBTU/H	Use of pipeline quality natural gas and energy efficiency i	6155 T/YR	BACT-PSD
FL-0356	OKEECHOBEE CLEAN ENERGY CENTER	03/09/2016	7/6/2016 Auxiliary Boiler, 99.8 MMBtu/hr	99.8 MMBtu/hr	Use of natural gas only	0	BACT-PSD
AL-0307	ALLOYS PLANT	10/09/2015	11/30/2017 PACKAGE BOILER	17.5 MMBTU/H	ose of hararan gas only	34189 T/YR	BACT-PSD
AL-0307	ALLOYS PLANT	10/09/2015	11/30/2017 2 CALP LINE BOILERS	24.59 MMBTU/H		34189 T/YR	BACT-PSD
OK-0173	CMC STEEL OKLAHOMA				Natural Gas Fuel	120 LB/MMBTU	BACT-PSD BACT-PSD
OH-0173		01/19/2016	7/7/2016 Heaters (Gas-Fired)	0	Natural Gas r'UEI		BACT-PSD BACT-PSD
	CARROLL COUNTY ENERGY	11/05/2013	4/1/2019 Auxiliary Boiler (B001)	99 MMBtu/H		26259.76 T/YR	
OH-0359	DTE MARIETTA	03/31/2014	2/19/2019 Backup Boilers (B001, B002)	96.5 MMBTU/H	Efficient burner design (natural gas, economizer)	49494 T/YR	BACT-PSD
TX-0772	PORT OF BEAUMONT PETROLEUM TRANSLOAD TERMINAL (PB	P11/06/2015	7/6/2016 Commercial/Institutional-Size Boilers/Furnaces	40 MMBTU/H	Good combustion practice to ensure complete combustic	20758 T/YR	BACT-PSD
TX-0772	PORT OF BEAUMONT PETROLEUM TRANSLOAD TERMINAL (PBI	P11/06/2015	7/6/2016 Commercial/Institutional-Size Boilers/Furnaces	95.7 MMBTU/H	Good combustion practices and use of low carbon fuel	119195 T/YR	BACT-PSD
TX-0772	PORT OF BEAUMONT PETROLEUM TRANSLOAD TERMINAL (PBI	P11/06/2015	7/6/2016 Commercial/Institutional-Size Boilers/Furnaces	13.2 MMBTU/H	Good combustion practice to ensure complete combustic	6850 T/YR	BACT-PSD
OK-0164	MIDWEST CITY AIR DEPOT	01/08/2015	7/6/2016 Heaters/Boilers	0 MMBTUH	1. Use pipeline-quality natural gas.2. Good Combustion P	153716 TONS PER YEAR	BACT-PSD
TX-0757	INDECK WHARTON ENERGY CENTER	05/12/2014	7/6/2016 Pipeline Heater	3 MMBtu/hr (HHV)		624.78 TPY CO2E	BACT-PSD
TX-0758	ECTOR COUNTY ENERGY CENTER	08/01/2014	7/6/2016 Dew-Point Heater	9 MMBTU/H		2631 TPY CO2E	BACT-PSD
TX-0756	NUEVO MIDSTREAM, RAMSEY GAS PLANT	11/18/2014	7/6/2016 Dew-Point Realer 7/6/2016 Regeneration Heater	36 MMBTU/H		168.3 LB CO2/MMSCF	BACT-PSD BACT-PSD
TX-0746	NUEVO MIDSTREAM, RAMSEY GAS PLANT NUEVO MIDSTREAM, RAMSEY GAS PLANT		7/6/2016 Regeneration Heater 7/6/2016 Hot Oil Heater	60 MMBTU/H		280.5 LB CO2/MMSCFD PR	
		11/18/2014			Conditional station		
AL-0282	LENZING FIBERS, INC.	01/22/2014	5/9/2016 Natural Gas Fired Boilers (3)	100 mm btu/hr	Good combustion practices	112508 TPY	BACT-PSD
AK-0083	KENAI NITROGEN OPERATIONS	01/06/2015	2/19/2016 Five (5) Waste Heat Boilers	50 MMBTU/H		59.61 TONS/MMCF	BACT-PSD
MS-0092	EMBERCLEAR GTL MS	05/08/2014	11/7/2016 Regeneration Heater, methanol to gasoline	13 MMBTU/H		0	BACT-PSD
MS-0092	EMBERCLEAR GTL MS	05/08/2014	11/7/2016 Reactor Heater, 5	12 MMBTU/H		0	BACT-PSD
OR-0050	TROUTDALE ENERGY CENTER, LLC	03/05/2014	5/5/2016 Auxiliary boiler	39.8 MMBTU/H	Clean fuels	117 LB CO2/MMBTU	BACT-PSD
OR-0050	TROUTDALE ENERGY CENTER, LLC	03/05/2014	5/5/2016 Auxiliary boiler	39.8 MMBTU/H	Clean fuels	117 LB CO2/MMBTU	BACT-PSD
MA-0039	SALEM HARBOR STATION REDEVELOPMENT	01/30/2014	5/5/2016 Auxiliary Boiler	80 MMBTU/H		119 LB/MMBTU	BACT-PSD
MI-0039	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	12/04/2013	5/5/2016 Fuel pre-heater (EUFUELHTR)	3.7 MMBTU/H	Good combustion practices	1934 T/YR	BACT-PSD BACT-PSD
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MI-0412	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	12/04/2013	5/5/2016 Auxiliary Boiler B (EUAUXBOILERB)	95 MMBTU/H	Good combustion practices	49251 T/YR	BACT-PSD
MI-0412	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET THETFORD GENERATING STATION	12/04/2013	5/5/2016 Auxiliary Boiler A (EUAUXBOILERA)	55 MMBTU/H	Good combustion practices	28514 T/YR	BACT-PSD
MI-0410		07/25/2013	5/4/2016 FGAUXBOILERS: Two auxiliary boilers < 100 MMBTU/H heat		t (Efficient combustion; energy efficiency.	24304 T/YR	BACT-PSD

#### Table C-24. RBLC GHG Summary for External Combustion Devices <100 MMBtu/hr, Natural Gas-Fired

		Permit	Date Last					
RBLCID	Facility Name	Issuance Date	Updated	Process Name	Throughput	Control Method Description	Emission Limit	BASIS
WY-0076	ROCK SPRINGS FERTILIZER COMPLEX	07/01/2014	1/8/201	6 Startup Heater	16 MMBTU/H	limited to 200 hours of operation per year	187 T/YR	BACT-PSD
WY-0075	CHEVENNE PRAIRIE GENERATING STATION	07/16/2014	5/11/201	8 Auxiliary Boiler	25.06 MMBtu/h	good combustion practices and energy efficiency	12855 TONS	BACT-PSD
PA-0296	BERKS HOLLOW ENERGY ASSOC LLC/ONTELAUNEE	12/17/2013	3/2/202	0 Auxiliary Boiler	40 MMBTU/H		12346 T/YR	OTHER CASE
IA-0107	MARSHALLTOWN GENERATING STATION	04/14/2014	5/4/201	6 dew point heater	13.32 mmBtu/hr		6860 TONS	BACT-PSD
IA-0107	MARSHALLTOWN GENERATING STATION	04/14/2014	5/4/201	6 dew point heater	13.32 mmBtu/hr		6860 TONS	BACT-PSD
IA-0107	MARSHALLTOWN GENERATING STATION	04/14/2014	5/4/201	6 auxiliary boiler	60.1 mmBtu/hr		17313 TON/YR	BACT-PSD
IA-0107	MARSHALLTOWN GENERATING STATION	04/14/2014	5/4/201	6 auxiliary boiler	60.1 mmBtu/hr		17313 TON/YR	BACT-PSD
MI-0406	RENAISSANCE POWER LLC	11/01/2013	7/7/201	6 FG-AUXBOILER1-2; Two (2) natural gas-fired auxiliary boilers.	40 MMBTU/H	Good combustion practices.	11503.7 T/YR	BACT-PSD
LA-0272	AMMONIA PRODUCTION FACILITY	03/27/2013	5/4/201	6 AMMONIA START-UP HEATER (102-B)	59.4 MM BTU/HR	Energy efficiency measures: use of economizers and boile	1738 TPY	BACT-PSD
LA-0271	PLAQUEMINE NGL FRACTIONATION PLANT	05/24/2013	5/4/201	6 Mol Sieve Dehy Regen Heater (H-01)	30 MMBTU/H	Improved combustion measures: heater tuning, optimiza	0	BACT-PSD
LA-0268	PLAQUEMINE PVC PLANT (SPP-2)	09/25/2013	5/4/201	6 Cracking Furnace E (2M-17) (EQT 0233)	90 MMBTU/H	Improved combustion measures (i.e., combustion tuning	46123 TPY	BACT-PSD
LA-0269	PLAQUEMINE PVC PLANT (SPP-1)	09/25/2013	5/4/201	6 Cracking Furnace E (M-17) (EQT 0242)	90 MMBTU/H	Improved combustion measures (i.e., combustion tuning	46123 TPY	BACT-PSD
OH-0355	GENERAL ELECTRIC AVIATION, EVENDALE PLANT	05/07/2013	5/4/201	6 4 Indirect-Fired Air Preheaters	0		74000 T/YR	N/A
PA-0291	HICKORY RUN ENERGY STATION	04/23/2013	3/2/202	0 AUXILIARY BOILER	40 MMBTU/H		13696 TPY	OTHER CASE
IA-0106	CF INDUSTRIES NITROGEN, LLC - PORT NEAL NITROGEN COMP	LI07/12/2013	5/4/201	6 Startup Heater	58.8 MMBTU/H	good operating practices & use of natural gas	345 TONS/YR	BACT-PSD
OH-0352	OREGON CLEAN ENERGY CENTER	06/18/2013	5/4/201	6 Auxillary Boiler	99 MMBtu/H		11671 T/YR	BACT-PSD
VA-0321	BRUNSWICK COUNTY POWER STATION	03/12/2013	6/19/201	9 AUXILIARY BOILER	66.7 MMBTU/H	Pipeline quality natural gas and fuel-efficient design and	117 LB/MMBTU	BACT-PSD

#### Table C-25. RBLC PM/PM<sub>10</sub>/PM<sub>2.5</sub> Summary for External Combustion Devices <100 MMBtu/hr, Natural Gas-Fired

	For the state	Permit	Date Last	Thurs 1	Control Mothod Description	<b>F 1</b>	
RBLCID	Facility Name	Issuance Date	Updated Process Name	Throughput	Control Method Description	Emission Limit	BASIS
M - Filter		00/00/0000		50 1110 1		0.0007 10 / 10 /0711	
N-0359	NUCOR STEEL	03/30/2023	5/23/2023 Boiler (CC-BOIL)	50 MMBtu/hr	good combustion practices and only pipeline quality natu	0.0007 LB/MMBTU	BACT-PSD
N-0359	NUCOR STEEL	03/30/2023	5/23/2023 Hot Water Circuit Burner for Galvanizing Line	9 MMBtu/hr	good combustion practices and only pipeline quality natu	1.9 LB/MMSCF	BACT-PSD
N-0359	NUCOR STEEL	03/30/2023	5/23/2023 Hot Water Circuit Burner for Sheet Metal Coating Line	5.12 MMBtu/hr	good combustion practices and only pipeline quality natu	1.9 LB/MMSCF	BACT-PSD
Y-0116	NOVELIS CORPORATION - GUTHRIE	07/25/2022	4/25/2023 EU 037 - Sow Dryer	20 MMBtu/hr	Good Combustion & Operation Practices (GCOP) Plan	0.04 LB/HR	BACT-PSD
Y-0116	NOVELIS CORPORATION - GUTHRIE	07/25/2022	4/25/2023 EU 041a - Direct-Fired Building Heating Systems	53 MMBtu/hr (total)	Good Combustion & Operation Practices (GCOP) Plan	0.1 LB/HR	BACT-PSD
Y-0116	NOVELIS CORPORATION - GUTHRIE	07/25/2022	4/25/2023 EU 041b - Indirect-Fired Building Heating Systems ≤ 1 MMB	3 MMBtu/hr (total)	Good Combustion & Operation Practices (GCOP) Plan	0.006 LB/HR	BACT-PSD
Y-0116	NOVELIS CORPORATION - GUTHRIE	07/25/2022	4/25/2023 EU 041c - Indirect-Fired Building Heating Systems > 1 MMBt	19.2 MMBtu/hr (total)	Good Combustion & Operation Practices (GCOP) Plan	0.04 LB/HR	BACT-PSD
DH-0387	INTEL OHIO SITE	09/20/2022	4/25/2023 45.6 MMBtu/hr Natural Gas-Fired Nitrogen Vaporizers: B029 th	45.6 MMBTU/H	Good combustion practices and the use of natural gas	0.45 T/YR	BACT-PSD
0H-0387	INTEL OHIO SITE	09/20/2022	4/25/2023 29.4 MMBtu/hr Natural Gas-Fired Boilers: B001 through B028	29.4 MMBTU/H	Good combustion practices and the use of natural gas	1.68 T/YR	BACT-PSD
/1-0452	MEC SOUTH, LLC	06/23/2022	4/25/2023 EUAUXBOILER (South Plant): Auxiliary Boiler	61.5 MMBTU/H	Good combustion practices.	0.005 LB/MMBTU	BACT-PSD
VI-0451	MEC NORTH, LLC	06/23/2022	4/25/2023 EUAUXBOILER (North Plant): Auxiliary Boiler	61.5 MMBTU/H	Good combustion practices	0.005 LB/MMBTU	BACT-PSD
X-0939	ORANGE COUNTY ADVANCED POWER STATION	03/13/2023	5/23/2023 Water Bath Heater	16.8 MMBTU/HR	Good combustion practices	0.007 LB/MMBTU	BACT-PSD
R-0173	BIG RIVER STEEL LLC	01/31/2022	3/4/2022 Hydrogen Plant #2 Reformer Furnace	75 MMBtu/hr	Combustion of Natural gas and Good Combustion Practic	0.0075 LB/MMBTU	BACT-PSD
AR-0173	BIG RIVER STEEL LLC	01/31/2022	3/4/2022 Pickle Line Boiler	53.7 MMBtu/hr	Combustion of Natural gas and Good Combustion Practic	0.0019 LB/MMBTU	BACT-PSD
AR-0173	BIG RIVER STEEL LLC	01/31/2022	3/4/2022 Galvanizing Line Boilers #1 and #2	53.7 MMBtu/hr	Combustion of Natural gas and Good Combustion Practic	0.0007 LB/MMBTU	BACT-PSD
AR-0173	BIG RIVER STEEL LLC	01/31/2022	3/4/2022 Pickle Galvanizing Line Boiler	53.7 MMBtu/hr	Combustion of Natural gas and Good Combustion Practic	0.0012 LB/MMBTU	BACT-PSD
VII-0448	GRAYLING PARTICLEBOARD	12/18/2020	8/16/2022 Thermal oil heater (EUTOH in FGTOH)	38 MMBTU/H	Good combustion practices	0.0075 LB/MMBTU	BACT-PSD
MI-0448	GRAYLING PARTICLEBOARD	12/18/2020	8/16/2022 Thermal oil system for thermally fused lamination lines (EUFLT)	10.2 MMBTU/H	Good combustion practices	0.0075 LB/MMBTU	BACT-PSD
L-0371	SHADY HILLS COMBINED CYCLE FACILITY	06/07/2021	3/4/2022 60 MMBtu/hour Auxiliary Boiler	60 MMBtu/hour		1.4 GR. S/100 SCF NG	BACT-PSD
AR-0172	NUCOR STEEL ARKANSAS	09/01/2021	3/4/2022 SN-202, 203, 204 Pickle Line Boilers	0	Good Combustion Practice	0.0019 LB/MMBTU	BACT-PSD
AR-0171	NUCOR STEEL ARKANSAS	02/14/2019	9/10/2021 SN-142 Vacuum Degasser Boiler	50.4 MMBTU/hr	Good combustion practices	0.0019 LB/MMBTU	BACT-PSD
AR-0171	NUCOR STEEL ARKANSAS	02/14/2019	9/10/2021 SN-233 Galvanizing Line Boilers	15 MMBTU/hr each	Good combustion practices	0.0019 LB/MMBTU	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Cold Mill Complex Makeup Air Units (EP 21-19)	40 MMBtu/hr, total	The permittee must develop a Good Combustion and Op	1.9 LB/MMSCF	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Vacuum Degasser Boiler (EP 20-13)	50.4 MMBtu/hr	The permittee must develop a Good Combustion and Op	1.9 LB/MMSCF	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Pickle Line #2 â€" Boiler #1 & #2 (EP 21-04 & EP 21-0	18 MMBtu/hr, each	The permittee must develop a Good Combustion and Op	1.9 LB/MMSCF	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Alkali Cleaning Section Heater (EP 21-07B)	23 MMBtu/hr	The permittee must develop a Good Combustion and Op	1.9 LB/MMSCF	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Radiant Tube Furnace (EP 21-08B)	36 MMBtu/hr	The permittee must develop a Good Combustion and Op	1.9 LB/MMSCF	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Annealing Furnaces (15) (EP 21-15)	4.8 MMBtu/hr, each	The permittee must develop a Good Combustion and Op	1.9 LB/MMSCF	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Preheat Furnace (EP 21-08A)	94 MMBtu/hr	The permittee must develop a Good Combustion and Op	1.9 LB/MMSCF	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Zinc Pot Preheater (EP 21-09)	3 MMBtu/hr	The permittee must develop a Good Combustion and Op	1.9 LB/MMSCF	BACT-PSD
KY-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Heated Transfer Table Furnace (EP 02-03)	65.5 MMBtu/hr	The permittee must develop a Good Combustion and Op	1.9 LB/MMSCF	BACT-PSD
*MI-0445	INDECK NILES, LLC	11/26/2019	12/23/2020 FGFUELHTR (2 fuel pre-heaters)	27 MMBTU/H	Good combustion practices	0.002 LB/MMBTU	BACT-PSD
KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 15-01 - Natural Gas Direct-Fired Space Heaters, Process Wat		This EP is required to have a Good Combustion and Oper	1.9 LB/MMSCF	BACT-PSD
KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 05-01 - Group 1 Car Bottom Furnaces #1 - #3	28 MMBtu/hr, each	This EP is required to have a Good Combustion and Oper	1.9 LB/MMSCF	BACT-PSD
KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 04-02 - Austenitizing Furnace	54 MMBtu/hr	This EP is required to have a Good Combustion and Oper	1.9 LB/MMSCF	BACT-PSD
KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 05-02 - Group 2 Car Bottom Furnaces A & amp; B		This EP is required to have a Good Combustion and Oper	1.9 LB/MMSCF	BACT-PSD
KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 03-02 - Ingot Car Bottom Furnaces #1-#4	37 MMBtu/hr, each	This EP is required to have a Good Combustion and Oper	1.9 LB/MMSCF	BACT-PSD
KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 03-05 - Steckel Mill Coiling Furnaces #1 & amp; #2	17.5 MMBtu/hr, each	This EP is required to have a Good Combustion and Oper	1.9 LB/MMSCF	BACT-PSD
KY-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 04-03 - Tempering Furnace	48 MMBtu/hr	This EP is required to have a Good Combustion and Oper	1.9 LB/MMSCF	BACT-PSD
TX-0888	ORANGE POLYETHYLENE PLANT	04/23/2020	11/12/2020 Heaters	100 MMBtu	Good combustion practice, clean fuel, and proper design	0.0075 LB/MMBTU	BACT-PSD
MI-0440	MICHIGAN STATE UNIVERSITY	05/22/2019	8/9/2021 FGFUELHEATERS	25 MMBTU/H	Good combustion practices	0.002 LB/MMBTU	BACT-PSD
AR-0159	BIG RIVER STEEL LLC	04/05/2019	11/10/2020 BOILER, PICKLE LINE	0	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	0.0019 LB/MMBTU	BACT-PSD
AR-0159	BIG RIVER STEEL LLC	04/05/2019	11/10/2020 PREHEATERS, GALVANIZING LINE SN-28 and SN-29	0	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	0.0012 LB/MMBTU	BACT-PSD
AR-0159	BIG RIVER STEEL LLC	04/05/2019	11/10/2020 BOILER, ANNEALING PICKLE LINE	0	Combustion of Natural gas and Good Combustion Practic	0.0019 LB/MMBTU	BACT-PSD
AR-0159	BIG RIVER STEEL LLC	04/05/2019	11/10/2020 BOILERS SN-26 AND SN-27, GALVANIZING LINE	0	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	0.0007 LB/MMBTU	BACT-PSD
FL-0367	SHADY HILLS COMBINED CYCLE FACILITY	07/27/2018	3/4/2022 60 MMBtu/hour Auxiliary Boiler	60 MMBtu/hour	Clean fuels	0	BACT-PSD
AR-0155	BIG RIVER STEEL LLC	11/07/2018	6/19/2019 BOILER, PICKLE LINE	53.7 MMBTU/HR	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	0.0019 LB/MMBTU	BACT-PSD
AR-0155	BIG RIVER STEEL LLC	11/07/2018	6/19/2019 BOILER SN-26, GALVANIZING LINE	53.7 MMBTU/HR	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	6.8 X10^-4 LB/MMBTU	BACT-PSD
AR-0155	BIG RIVER STEEL LLC	11/07/2018	6/19/2019 PREHEATER, GALVANIZING LINE SN-28	78.2 MMBTU/HR	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	0.0012 LB/MMBTU	BACT-PSD
MI-0435	BELLE RIVER COMBINED CYCLE POWER PLANT	07/16/2018	2/19/2019 EUAUXBOILER: Auxiliary Boiler	99.9 MMBTU/H	Good combustion practices, low sulfur fuel	0.007 LB/MMBTU	BACT-PSD
MI-0435	BELLE RIVER COMBINED CYCLE POWER PLANT	07/16/2018	2/19/2019 EUFUELHTR1: Natural gas fired fuel heater	20.8 MMBTU/H	Low sulfur fuel	0.15 LB/H	BACT-PSD
MI-0435	BELLE RIVER COMBINED CYCLE POWER PLANT	07/16/2018	2/19/2019 EUFUELHTR2: Natural gas fired fuel heater	3.8 MMBTU/H	Low sulfur fuel	0.03 LB/H	BACT-PSD
MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	06/29/2018	2/19/2019 EUAUXBOILER (North Plant): Auxiliary Boilder	61.5 MMBTU/H	Good combustion practices.	0.005 LB/MMBTU	BACT-PSD
MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	06/29/2018	2/19/2019 EUAUXBOILER (South Plant): Auxiliary Boiler	61.5 MMBTU/h	Good combustion practices.	0.005 LB/MMBTU	BACT-PSD
FL-0363	DANIA BEACH ENERGY CENTER	12/04/2017	3/4/2022 99.8 MMBtu/hr auxiliary boiler	99.8 MMBtu/hr	Clean fuels	0	BACT-PSD
NY-0104	CPV VALLEY ENERGY CENTER	08/01/2013	9/28/2017 Auxiliary boiler	0	Natural gas.	0.0063 LB/MMBTU	BACT-PSD
NY-0103	CRICKET VALLEY ENERGY CENTER	02/03/2016	9/28/2017 Auxiliary boiler	60 MMBTU/H	good combustion practiced and pipeline quality natural g	0.005 LB/MMBTU	BACT-PSD
VII-0425	GRAYLING PARTICLEBOARD	05/09/2017	11/15/2017 EUTOH in FGTOH	38 MMBTU/H	Good combustion practices	0.0075 LB/MMBTU	BACT-PSD
MI-0425	GRAYLING PARTICLEBOARD	05/09/2017	11/15/2017 EUFLTOS1 in FGTOH	10.2 MMBTU/H	Good combustion practices	0.0075 LB/MMBTU	BACT-PSD
MI-0424	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	12/05/2016	3/8/2018 EUFUELHTR (Fuel pre-heater)	3.7 MMBTU/H	Good combustion practices.	0.007 LB/MMBTU	BACT-PSD
MI-0424	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	12/05/2016	3/8/2018 EUAUXBOILER (Auxiliary boiler)	83.5 MMBTU/H	Good combustion practices.	0.0018 LB/MMBTU	BACT-PSD
PA-0309	LACKAWANNA ENERGY CTR/JESSUP	12/23/2015	12/21/2018 Auxillary Boiler	13.31 MMBtu/hr	Natural gas fired exclusively	0.002 LB/MMBTU	BACT-PSD
N-0263	MIDWEST FERTILIZER COMPANY LLC	03/23/2017	8/22/2017 STARTUP HEATER EU-002	70 MMBTU/HR	GOOD COMBUSTION PRACTICE	0.13 LB/H	BACT-PSD
MI-0423	INDECK NILES, LLC	01/04/2017	3/8/2018 FGFUELHTR (Two fuel pre-heaters identified as EUFUELHTR1 &	27 MMBTU/H	Good combustion practices.	0.002 LB/MMBTU	BACT-PSD
VII-0421	GRAYLING PARTICLEBOARD	08/26/2016	7/20/2017 EUFLTOS1 in FGTOH (Thermal Oil System for Thermally Fused Li	34 MMBTU/H	Good combustion practices.	0.0075 LB/MMBTU	BACT-PSD
MI-0421	GRAYLING PARTICLEBOARD	08/26/2016	7/20/2017 EUTOH (In FGTOH)Thermal Oil Heater	34 MMBTU/H	Good combustion practices	0.0075 LB/MMBTU	BACT-PSD
	BIG RIVER STEEL LLC	09/18/2013	12/13/2016 BOILER, PICKLE LINE	67 MMBTU/H	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	5.2 X10^-4 LB/MMBTU	BACT-PSD
AR-0140							

#### Table C-25. RBLC PM/PM<sub>10</sub>/PM<sub>2.5</sub> Summary for External Combustion Devices <100 MMBtu/hr, Natural Gas-Fired

		Permit	Date Last				
RBLCID	Facility Name		Updated Process Name	Throughput	Control Method Description	Emission Limit	BASIS
AR-0140	BIG RIVER STEEL LLC	09/18/2013	12/13/2016 FURNACES SN-40 AND SN-42, DECARBURIZING LINE	22 MMBTU/H	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	5.2 X10^-4 LB/MMBTU	BACT-PSD
NJ-0085	MIDDLESEX ENERGY CENTER, LLC	07/19/2016	11/3/2016 AUXILIARY BOILER	4000 H/YR	USE OF NATURAL GAS A CLEAN BURNING FUEL	0.181 LB/H	BACT-PSD
NJ-0084	PSEG FOSSIL LLC SEWAREN GENERATING STATION	03/10/2016	4/17/2018 Auxiliary Boiler firing natural gas	687 MMCFT/YR	Use of natural gas a clean burning	0.26 LB/H	BACT-PSD
MD-0046	KEYS ENERGY CENTER	10/31/2014	5/13/2016 AUXILIARY BOILER	93 MMBTU/H	EFFICIENT BOILER DESIGN, EXCLUSIVE USE OF PIPELINE Q	0.0075 LB/MMBTU	BACT-PSD
MD-0045	MATTAWOMAN ENERGY CENTER	11/13/2015	5/13/2016 AUXILIARY BOILER	42 MMBTU/H	USE OF PIPELINE QUALITY NATURAL GAS AND GOOD COM	0.0019 LB/MMBTU	BACT-PSD
MD-0042	WILDCAT POINT GENERATION FACILITY	04/08/2014	8/12/2020 AUXILLARY BOILER	45 MMBTU/H	EXCLUSIVE USE OF PIPELINE QUALITY NATURAL GAS AND	0.0075 LB/MMBTU	BACT-PSD
MD-0041	CPV ST. CHARLES	04/23/2014	4/26/2018 AUXILLARY BOILER	93 MMBTU/H	USE OF PIPELINE QUALITY NATURAL GAS AND GOOD COM	0.005 LB/MMBTU	BACT-PSD
AL-0282	LENZING FIBERS, INC.	01/22/2014	5/9/2016 Natural Gas Fired Boilers (3)	100 mm btu/hr	Good combustion Practices.	0.0075	BACT-PSD
MI-0412	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	12/04/2013	5/5/2016 Fuel pre-heater (EUFUELHTR)	3.7 MMBTU/H	Good combustion practices.	0.007 LB/MMBTU	BACT-PSD
MI-0412	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	12/04/2013	5/5/2016 Auxiliary Boiler B (EUAUXBOILERB)	95 MMBTU/H	Good combustion practices	0.0018 LB/MMBTU	BACT-PSD
MI-0412	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	12/04/2013	5/5/2016 Auxiliary Boiler A (EUAUXBOILERA)	55 MMBTU/H	Good combustion practices	0.0018 LB/MMBTU	BACT-PSD
MI-0410	THETFORD GENERATING STATION	07/25/2013	5/4/2016 FGAUXBOILERS: Two auxiliary boilers &It 100 MMBTU/H heat	100 MMBTU/H heat in	put (Efficient combustion; natural gas fuel.	0.0018 LB/MMBTU	BACT-PSD
MI-0406	RENAISSANCE POWER LLC	11/01/2013	7/7/2016 FG-AUXBOILER1-2; Two (2) natural gas-fired auxiliary boilers.	40 MMBTU/H	Good combustion practices.	0.005 LB/MMBTU	BACT-PSD
SC-0149	KLAUSNER HOLDING USA, INC	01/03/2013	8/27/2014 NATURAL GAS BOILER EU004	46 MMBTU/H		0.002 LB/MMBTU	OTHER CASE
SC-0149	KLAUSNER HOLDING USA, INC	01/03/2013	8/27/2014 NATURAL GAS BOILER EU005	46 MMBTU/H		0.002 LB/MMBTU	OTHER CASE
SC-0149	KLAUSNER HOLDING USA, INC	01/03/2013	8/27/2014 NATURAL GAS BOILER EU006	46 MMBTU/H		0.002 LB/MMBTU	OTHER CASE
PM <sub>10</sub> - Filt	erable						
TX-0939	ORANGE COUNTY ADVANCED POWER STATION	03/13/2023	5/23/2023 Water Bath Heater	16.8 MMBTU/HR	Good combustion practices	0.007 LB/MMBTU	BACT-PSD
FL-0371	SHADY HILLS COMBINED CYCLE FACILITY	06/07/2021	3/4/2022 60 MMBtu/hour Auxiliary Boiler	60 MMBtu/hour	Clean Fuels	1.4 GR. S/100 SCF NG	BACT-PSD
AL-0328	PLANT BARRY	11/09/2020	3/4/2022 90.5 MMBtu/hr Aux Boiler	90.5 MMBtu/hr		0.0075 LB/MMBTU	BACT-PSD
AL-0329	COLBERT COMBUSTION TURBINE PLANT	09/21/2021	3/4/2022 Three Gas Heaters	10 MMBtu/hr		0.008 LB/MMBTU	BACT-PSD
TX-0888	ORANGE POLYETHYLENE PLANT	04/23/2020	11/12/2020 Heaters	100 MMBtu	Good combustion practice, clean fuel, and proper design	0.0075 LB/MMBTU	BACT-PSD
*PA-0316	RENOVO ENERGY CENTER, LLC	01/26/2018	3/26/2019 Auxiliary Boiler	118800 MMBtu/12 month		0.0019 LB	BACT-PSD
AR-0155	BIG RIVER STEEL LLC	11/07/2018	6/19/2019 PREHEATER, GALVANIZING LINE SN-28	78.2 MMBTU/HR	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	0.0012 LB/MMBTU	BACT-PSD
PA-0296	BERKS HOLLOW ENERGY ASSOC LLC/ONTELAUNEE	12/17/2013	3/2/2020 Auxiliary Boiler	40 MMBTU/H		0.46 T/YR	OTHER CASE
SC-0149	KLAUSNER HOLDING USA, INC	01/03/2013	8/27/2014 NATURAL GAS BOILER EU004	46 MMBTU/H		0.005 LB/MMBTU	OTHER CASE
SC-0149	KLAUSNER HOLDING USA, INC	01/03/2013	8/27/2014 NATURAL GAS BOILER EU005	46 MMBTU/H		0.005 LB/MMBTU	OTHER CASE
SC-0149	KLAUSNER HOLDING USA, INC	01/03/2013	8/27/2014 NATURAL GAS BOILER EU006	46 MMBTU/H		0.005 LB/MMBTU	OTHER CASE
VA-0321	BRUNSWICK COUNTY POWER STATION	03/12/2013	6/19/2019 AUXILIARY BOILER	66.7 MMBTU/H	Low sulfur/carbon fuel and good combustion practices	0.007 LB/MMBTU	BACT-PSD
PM <sub>2.5</sub> - Filt	terable						
TX-0939	ORANGE COUNTY ADVANCED POWER STATION	03/13/2023	5/23/2023 Water Bath Heater	16.8 MMBTU/HR	Good combustion practices	0.007 LB/MMBTU	BACT-PSD
FL-0371	SHADY HILLS COMBINED CYCLE FACILITY	06/07/2021	3/4/2022 60 MMBtu/hour Auxiliary Boiler	60 MMBtu/hour	····· · · · · · · · · · · · · · · · ·	1.4 GR. S/100 SCF NG	BACT-PSD
AL-0328	PLANT BARRY	11/09/2020	3/4/2022 90.5 MMBtu/hr Aux Boiler	90.5 MMBtu/hr		0.0075 LB/MMBTU	BACT-PSD
AL-0329	COLBERT COMBUSTION TURBINE PLANT	09/21/2021	3/4/2022 Three Gas Heaters	10 MMBtu/hr		0.008 LB/MMBTU	BACT-PSD
TX-0888	ORANGE POLYETHYLENE PLANT	04/23/2020	11/12/2020 Heaters	100 MMBtu	Good combustion practice, clean fuel, and proper design	0.0075 LB/MMBTU	BACT-PSD
FL-0367	SHADY HILLS COMBINED CYCLE FACILITY	07/27/2018	3/4/2022 60 MMBtu/hour Auxiliary Boiler	60 MMBtu/hour	Clean fuels	0	BACT-PSD
MI-0425	GRAYLING PARTICLEBOARD	05/09/2017	11/15/2017 EUFLTOS1 in FGTOH	10.2 MMBTU/H	Good combustion practices	0.0004 LB/MMBTU	BACT-PSD
MI-0406	RENAISSANCE POWER LLC	11/01/2013	7/7/2016 FG-AUXBOILER1-2; Two (2) natural gas-fired auxiliary boilers.	40 MMBTU/H	Good combustion practices.	0.005 LB/MMBTU	BACT-PSD
SC-0149	KLAUSNER HOLDING USA, INC	01/03/2013	8/27/2014 NATURAL GAS BOILER EU004	46 MMBTU/H		0.005 LB/MMBTU	OTHER CASE
SC-0149	KLAUSNER HOLDING USA, INC	01/03/2013	8/27/2014 NATURAL GAS BOILER EU005	46 MMBTU/H		0.005 LB/MMBTU	OTHER CASE
SC-0149	KLAUSNER HOLDING USA, INC	01/03/2013	8/27/2014 NATURAL GAS BOILER EU006	46 MMBTU/H		0.005 LB/MMBTU	OTHER CASE
VA-0321	BRUNSWICK COUNTY POWER STATION	03/12/2013	6/19/2019 AUXILIARY BOILER	66.7 MMBTU/H	Low sulfur/carbon fuel and good combustion practices	0.007 LB/MMBTU	BACT-PSD
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#### Table C-26. RBLC $SO_2$ Summary for External Combustion Devices <100 MMBtu/hr, Natural Gas-Fired

	Paulite Alama	Permit	Date Last	-	Control Mathed Description	Fourierie and the fi	DACIC
RBLCID	Facility Name	Issuance Date		Throughput	Control Method Description	Emission Limit	BASIS
V-0359	NUCOR STEEL	03/30/2023	5/23/2023 Boiler (CC-BOIL)	50 MMBtu/hr	good combustion practices and only pipeline quality natu	0.0006 LB/MMBTU	BACT-PS
1-0359	NUCOR STEEL	03/30/2023	5/23/2023 Hot Water Circuit Burner for Galvanizing Line	9 MMBtu/hr	Only pipeline quality natural gas shall be combusted	0.0006 LB/MMBTU	BACT-PS
-0359	NUCOR STEEL	03/30/2023	5/23/2023 Hot Water Circuit Burner for Sheet Metal Coating Line	5.12 MMBtu/hr	Only pipeline quality natural gas fuel shall be combusted	0.0006 LB/MMBTU	BACT-PS
I-0452	MEC SOUTH, LLC	06/23/2022	4/25/2023 EUAUXBOILER (South Plant): Auxiliary Boiler	61.5 MMBTU/H	Good combustion practices, and the use of pipeline quali	1.8 LB/MMSCF	BACT-P
I-0451	MEC NORTH, LLC	06/23/2022	4/25/2023 EUAUXBOILER (North Plant): Auxiliary Boiler	61.5 MMBTU/H	Good combustion practices and the use of pipeline qualit	1.8 LB/MMSCF	BACT-P
0133	LINCOLN LAND ENERGY CENTER	07/29/2022	12/6/2022 Auxiliary Boiler	80 mmBtu/hour	Use of only natural gas with a sulfur content of no greate	0.0014 POUNDS/MMBTU	BACT-P
R-0173	BIG RIVER STEEL LLC	01/31/2022	3/4/2022 Hydrogen Plant #2 Reformer Furnace	75 MMBtu/hr	Combustion of Natural gas and Good Combustion Practic	0.0006 LB/MMBTU	BACT-P
R-0173	BIG RIVER STEEL LLC	01/31/2022	3/4/2022 Pickle Line Boiler	53.7 MMBtu/hr	Combustion of Natural gas and Good Combustion Practic	0.0006 LB/MMBTU	BACT-P
R-0173	BIG RIVER STEEL LLC	01/31/2022	3/4/2022 Galvanizing Line Boilers #1 and #2	53.7 MMBtu/hr	Combustion of Natural gas and Good Combustion Practic	0.0006 LB/MMBTU	BACT-F
R-0173	BIG RIVER STEEL LLC	01/31/2022	3/4/2022 Pickle Galvanizing Line Boiler	53.7 MMBtu/hr	Combustion of Natural gas and Good Combustion Practic	0.0006 LB/MMBTU	BACT-F
-0371	SHADY HILLS COMBINED CYCLE FACILITY	06/07/2021	3/4/2022 60 MMBtu/hour Auxiliary Boiler	60 MMBtu/hour	Limited sulfur content in fuel	1.4 GR. S/100 SCF NG	BACT-F
-0328	PLANT BARRY	11/09/2020	3/4/2022 90.5 MMBtu/hr Aux Boiler	90.5 MMBtu/hr		0.002 LB/MMBTU	BACT-F
				0	Law Colfer foots		
-0172	NUCOR STEEL ARKANSAS	09/01/2021	3/4/2022 SN-202, 203, 204 Pickle Line Boilers	-	Low Sulfur fuels	0.0006 LB/MMBTU	BACT-I
-0171	NUCOR STEEL ARKANSAS	02/14/2019	9/10/2021 SN-142 Vacuum Degasser Boiler	50.4 MMBTU/hr	Good combustion practices	0.0006 LB/MMBTU	BACT-
-0171	NUCOR STEEL ARKANSAS	02/14/2019	9/10/2021 SN-233 Galvanizing Line Boilers	15 MMBTU/hr each	Good combustion practices	0.0006 LB/MMBTU	BACT-
-0168	BIG RIVER STEEL LLC	03/17/2021	5/26/2021 Galvanizing Line #2 Furnace	150.5 MMBtu/hr	Combustion of Natural gas and Good Combustion Practic	0.0006 LB/MMBTU	BACT-I
-0168	BIG RIVER STEEL LLC	03/17/2021	5/26/2021 Decarburizing Line Furnace Section	58 MMBtu/hr	Combustion of Natural gas and Good Combustion Practic	0.0006 LB/MMBTU	BACT-I
-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Cold Mill Complex Makeup Air Units (EP 21-19)	40 MMBtu/hr, total	The permittee must develop a Good Combustion and Op	0.6 LB/MMSCF	BACT-I
-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Vacuum Degasser Boiler (EP 20-13)	50.4 MMBtu/hr	The permittee must develop a Good Combustion and Op	0.6 LB/MMSCF	BACT-F
-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Pickle Line #2 â€" Boiler #1 & #2 (EP 21-04 & EP 21-0	18 MMBtu/hr, each	The permittee must develop a Good Combustion and Op	0.6 LB/MMSCF	BACT-F
-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Alkali Cleaning Section Heater (EP 21-07B)	23 MMBtu/hr	The permittee must develop a Good Combustion and Op	0.6 LB/MMSCF	BACT-
-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Radiant Tube Furnace (EP 21-08B)	36 MMBtu/hr	The permittee must develop a Good Combustion and Op	0.6 LB/MMSCF	BACT-
-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Annealing Furnaces (15) (EP 21-15)	4.8 MMBtu/hr, each	The permittee must develop a Good Combustion and Op	0.6 LB/MMSCF	BACT-
-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Preheat Furnace (EP 21-08A)	94 MMBtu/hr	The permittee must develop a Good Combustion and Op	0.6 LB/MMSCF	BACT-
-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Galvanizing Line #2 Zinc Pot Preheater (EP 21-08A)	3 MMBtu/hr	The permittee must develop a Good Combustion and Op	0.6 LB/MMSCF	BACT-
-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Heated Transfer Table Furnace (EP 02-03)	65.5 MMBtu/hr	The permittee must develop a Good Combustion and Op	0.6 LB/MMSCF	BACT-
vii-0445	INDECK NILES, LLC	11/26/2019	12/23/2020 FGFUELHTR (2 fuel pre-heaters)	27 MMBTU/H	Good combustion practices and the use of pipeline qualit	2000 GR/MMSCF	BACT-
(-0085	GAS TREATMENT PLANT	08/13/2020	8/16/2022 Two (2) Buyback Gas Bath Heaters and Three (3) Operations Ca	32 MMBtu/hr	Good Combustion Practices, Clean Fuels (NG), and Limite	96 PPMV SULFUR IN FUE	
-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 15-01 - Natural Gas Direct-Fired Space Heaters, Process Wat		This EP is required to have a Good Combustion and Oper	0.6 LB/MMSCF	BACT-
-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 05-01 - Group 1 Car Bottom Furnaces #1 - #3	28 MMBtu/hr, each	This EP is required to have a Good Combustion and Oper	0.6 LB/MMSCF	BACT-
-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 04-02 - Austenitizing Furnace	54 MMBtu/hr	This EP is required to have a Good Combustion and Oper	0.6 LB/MMSCF	BACT-
-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 05-02 - Group 2 Car Bottom Furnaces A & amp; B	60 MMBtu/hr, combined	This EP is required to have a Good Combustion and Oper	0.6 LB/MMSCF	BACT-
Y-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 03-02 - Ingot Car Bottom Furnaces #1-#4	37 MMBtu/hr, each	This EP is required to have a Good Combustion and Oper	0.6 LB/MMSCF	BACT-F
Y-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 03-05 - Steckel Mill Coiling Furnaces #1 & amp; #2	17.5 MMBtu/hr, each	This EP is required to have a Good Combustion and Oper	0.6 LB/MMSCF	BACT-F
Y-0110	NUCOR STEEL BRANDENBURG	07/23/2020	1/25/2021 EP 04-03 - Tempering Furnace	48 MMBtu/hr	This EP is required to have a Good Combustion and Oper	0.6 LB/MMSCF	BACT-F
A-0364	FG LA COMPLEX	01/06/2020	8/9/2021 PR Waste Heat Boiler	94 mm btu/h	Use of pipeline quality natural gas or fuel gas.	8.03 LB/H	BACT-F
A-0349	DRIFTWOOD LNG FACILITY	07/10/2018	8/6/2021 Hot Oil Heaters (5)	16.13 mm btu/hr	Good Combustion Practices and Use of low sulfur facility	0	BACT-F
x-0888	ORANGE POLYETHYLENE PLANT	04/23/2020		100 MMBtu		e e	BACT-F
			11/12/2020 Heaters		Good combustion practice, clean fuel, and proper design	2 GR/100 SCF	
H-0381	NORTHSTAR BLUESCOPE STEEL, LLC	09/27/2019	8/9/2021 Tunnel Furnace #2 (P018)	88 MMBTU/H	Use of natural gas, good combustion practices and design	0.05 LB/H	BACT-I
/I-0284	SIO INTERNATIONAL WISCONSIN, INCENERGY PLANT	04/24/2018	3/8/2022 B13-B24 & amp; B25-B36 Natural Gas-Fired Boilers	28 mmBTU	Good Combustion Practices and The Use of Pipeline Qual	0.0006 LB/MMBTU	BACT-F
1-0283	AFE, INC. â€"LCM PLANT	04/24/2018	3/8/2022 B01-B12, Boilers	28 mmBTU/hr	Good Combustion Practices and the Use of Pipeline Qual	0.0006 LB/MMBTU	BACT-F
R-0159	BIG RIVER STEEL LLC	04/05/2019	11/10/2020 BOILER, PICKLE LINE	0	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	0.0006 LB/MMBTU	BACT-F
R-0159	BIG RIVER STEEL LLC	04/05/2019	11/10/2020 PREHEATERS, GALVANIZING LINE SN-28 and SN-29	0	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	0.0006 LB/MMBTU	BACT-F
R-0159	BIG RIVER STEEL LLC	04/05/2019	11/10/2020 BOILER, ANNEALING PICKLE LINE	0	Combustion of Natural gas and Good Combustion Practic	0.0006 LB/MMBTU	BACT-P
R-0159	BIG RIVER STEEL LLC	04/05/2019	11/10/2020 BOILERS SN-26 AND SN-27, GALVANIZING LINE	0	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	0.0006 LB/MMBTU	BACT-F
H-0377	HARRISON POWER	04/19/2018	6/19/2019 Auxiliary Boiler (B001)	44.55 MMBTU/H	Pipeline quality natural gas	0.022 LB/H	BACT-I
H-0377	HARRISON POWER	04/19/2018	6/19/2019 Auxiliary Boiler (B002)	80 MMBTU/H	Pipeline quality natural gas	0.12 LB/H	BACT-F
-0367	SHADY HILLS COMBINED CYCLE FACILITY	07/27/2018	3/4/2022 60 MMBtu/hour Auxiliary Boiler	60 MMBtu/hour	Limited sulfur content in natural gas	0	BACT-F
H-0374	GUERNSEY POWER STATION LLC	10/23/2017	6/19/2019 Fuel Gas Heaters (2 identical, P007 and P008)	15 MMBTU/H	Pipeline natural gas fuel	0.023 LB/H	BACT-I
H-0372	OREGON ENERGY CENTER	09/27/2017	6/19/2019 Auxiliary Boiler (B001)	37.8 MMBTU/H	low sulfur fuel	0.06 LB/H	BACT-F
H-0372				37.8 MMBTU/H	Low sulfur fuel		BACT-F
	TRUMBULL ENERGY CENTER	09/07/2017	6/19/2019 Auxiliary Boiler (B001)			0.06 LB/H	
H-0367	SOUTH FIELD ENERGY LLC	09/23/2016	6/19/2019 Auxiliary Boiler (B001)	99 MMBTU/H	natural gas/ultra low sulfur diesel	0.15 LB/H	BACT-
-0845	ARKEMA BEAUMONT PLANT	08/24/2018	2/19/2019 HEATERS	31 BTU/HR	low sulfur fuel and minimization of sulfur in waste throu	5 GR/100 DSCF	BACT-
1-0433	MEC NORTH, LLC AND MEC SOUTH LLC	06/29/2018	2/19/2019 EUAUXBOILER (North Plant): Auxiliary Boilder	61.5 MMBTU/H	Good combustion practices and the use of pipeline qualit	1.8 LB/MMSCF	BACT-
1-0433	MEC NORTH, LLC AND MEC SOUTH LLC	06/29/2018	2/19/2019 EUAUXBOILER (South Plant): Auxiliary Boiler	61.5 MMBTU/h	Good combustion practices and the use of pipeline qualit	1.8 LB/MMSCF	BACT-
-0363	DANIA BEACH ENERGY CENTER	12/04/2017	3/4/2022 Two natural gas heaters	9.9 MMBtu/hr	Clean fuel	2 GRAINS S / 100 SCF	BACT-
-0363	DANIA BEACH ENERGY CENTER	12/04/2017	3/4/2022 99.8 MMBtu/hr auxiliary boiler	99.8 MMBtu/hr	Clean fuels	0	BACT-
-0104	CPV VALLEY ENERGY CENTER	08/01/2013	9/28/2017 Auxiliary boiler	0	Natural gas.	0.0022 LB/MMBTU	BACT-
-0423	INDECK NILES, LLC	01/04/2017	3/8/2018 FGFUELHTR (Two fuel pre-heaters identified as EUFUELHTR1 &	27 MMBTU/H	Good combustion practices and the use of pipeline qualit	2000 GR/MMSCF	BACT-
-0305	LAKE CHARLES METHANOL FACILITY	06/30/2016	4/28/2017 Gasifier Start-up Preheat Burners	23 MM BTU/hr (each)	good engineering practices, good combustion technology	0	BACT-
-0305	LAKE CHARLES METHANOL FACILITY	06/30/2016	4/28/2017 WSA Preheat Burners	23 MINI BLO/III (eacil)		0	BACT-
					good engineering design and practices and use of clean f		
-0140	BIG RIVER STEEL LLC	09/18/2013	12/13/2016 BOILER, PICKLE LINE	67 MMBTU/H	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	5.88 X10^-4 LB/MMBTU	BACT
-0140	BIG RIVER STEEL LLC	09/18/2013	12/13/2016 BOILERS SN-26 AND 27, GALVANIZING LINE	24.5 MMBTU/H	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	5.88 X10^-4 LB/MMBTU	BACT
1-0140	BIG RIVER STEEL LLC	09/18/2013	12/13/2016 FURNACES SN-40 AND SN-42, DECARBURIZING LINE	22 MMBTU/H	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTIO	5.88 X10^-4 LB/MMBTU	BACT
-0085	MIDDLESEX ENERGY CENTER, LLC	07/19/2016	11/3/2016 AUXILIARY BOILER	4000 H/YR	USE OF NATURAL GAS A CLEAN BURNING LOW SULFUR F	0.128 LB/H	OTHE
-0084	PSEG FOSSIL LLC SEWAREN GENERATING STATION	03/10/2016	4/17/2018 Auxiliary Boiler firing natural gas	687 MMCFT/YR	Use of natural gas a low sulfur fuel	0.12 LB/H	OTHE
-0356	OKEECHOBEE CLEAN ENERGY CENTER	03/09/2016	7/6/2016 Auxiliary Boiler, 99.8 MMBtu/hr	99.8 MMBtu/hr	Use of low-sulfur gas	2 GR. S/100 SCF GAS	BACT-
	OKEECHOBEE CLEAN ENERGY CENTER	03/09/2016	7/6/2016 Two natural gas heaters	10 MMBtu/hr	Use of low-sulfur fuel	2 GR. S/100 SCF GAS	BACT-
-0356							

#### Table C-26. RBLC SO<sub>2</sub> Summary for External Combustion Devices <100 MMBtu/hr, Natural Gas-Fired

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		Permit	Date Last				
RBLCID	Facility Name	Issuance Date	Updated Process Name	Throughput	Control Method Description	Emission Limit	BASIS
TX-0772	PORT OF BEAUMONT PETROLEUM TRANSLOAD TERMINA	(PBP 11/06/2015	7/6/2016 Commercial/Institutional-Size Boilers/Furnaces	95.7 MMBTU/H	Fuel total sulfur content will be less than or equal to 5 gr	5 GR/100 SCF	BACT-PSD
TX-0772	PORT OF BEAUMONT PETROLEUM TRANSLOAD TERMINA	(PBP 11/06/2015	7/6/2016 Commercial/Institutional-Size Boilers/Furnaces	13.2 MMBTU/H	Good combustion practice to ensure complete combustic	5 GR/100 SCF	BACT-PSD
MD-0042	WILDCAT POINT GENERATION FACILITY	04/08/2014	8/12/2020 AUXILLARY BOILER	45 MMBTU/H	EXCLUSIVE USE OF PIPELINE QUALITY NATURAL GAS	0.0006 LB/MMBTU	BACT-PSD
MA-0039	SALEM HARBOR STATION REDEVELOPMENT	01/30/2014	5/5/2016 Auxiliary Boiler	80 MMBTU/H		0.9 PPMVD@3% O2	OTHER CASE
OH-0355	GENERAL ELECTRIC AVIATION, EVENDALE PLANT	05/07/2013	5/4/2016 4 Indirect-Fired Air Preheaters	0		0.001 LB/MMBTU	N/A
VA-0321	BRUNSWICK COUNTY POWER STATION	03/12/2013	6/19/2019 AUXILIARY BOILER	66.7 MMBTU/H	Low sulfur fuel.	0.0011 LB/MMBTU	BACT-PSD

#### Table C-27. RBLC H<sub>2</sub>SO<sub>4</sub> Summary for External Combustion Devices <100 MMBtu/hr, Natural Gas-Fired

		Permit Date Last								
RBLCID	Facility Name	Issuance Date	Updated Process Name	Throughput	Control Method Description	Emission Limit	BASIS			
IL-0133	LINCOLN LAND ENERGY CENTER	07/29/2022	12/6/2022 Auxiliary Boiler	80 mmBtu/hour	Use of only natural gas with a sulfur content of no greate	0.02 POUNDS/MMBTU	BACT-PSD			
WI-0306	WPL- RIVERSIDE ENERGY CENTER	02/28/2020	9/16/2022 Temporary Boiler (B98A)	14.67 MMBTU/H	Combust only pipeline quality natural gas.	0	BACT-PSD			
WI-0300	NEMADJI TRAIL ENERGY CENTER	09/01/2020	9/16/2022 Natural Gas-Fired Auxiliary Boiler (B02)	100 MMBTU/H	Only combust pipeline quality natural gas and operate ar	0.01 LB/H	BACT-PSD			
FL-0371	SHADY HILLS COMBINED CYCLE FACILITY	06/07/2021	3/4/2022 60 MMBtu/hour Auxiliary Boiler	60 MMBtu/hour	Limited sulfur content in fuel	1.4 GR. S/100 SCF NG	BACT-PSD			
IL-0130	JACKSON ENERGY CENTER	12/31/2018	4/16/2020 Auxiliary Boiler	96 mmBtu/hr	Good combustion practice	0.1 POUNDS/HOUR	BACT-PSD			
OH-0377	HARRISON POWER	04/19/2018	6/19/2019 Auxiliary Boiler (B001)	44.55 MMBTU/H	Pipeline quality natural gas	0.004 LB/H	BACT-PSD			
OH-0377	HARRISON POWER	04/19/2018	6/19/2019 Auxiliary Boiler (B002)	80 MMBTU/H	Pipeline quality natural gas	0.018 LB/H	BACT-PSD			
FL-0367	SHADY HILLS COMBINED CYCLE FACILITY	07/27/2018	3/4/2022 60 MMBtu/hour Auxiliary Boiler	60 MMBtu/hour	Clean fuels	0	BACT-PSD			
OH-0375	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	11/07/2017	6/19/2019 Auxiliary Boiler (B001)	26.8 MMBTU/H	Low sulfur fuel	0.003 LB/H	BACT-PSD			
OH-0374	GUERNSEY POWER STATION LLC	10/23/2017	6/19/2019 Fuel Gas Heaters (2 identical, P007 and P008)	15 MMBTU/H	Pipeline natural gas fuel	0.0035 LB/H	BACT-PSD			
OH-0372	OREGON ENERGY CENTER	09/27/2017	6/19/2019 Auxiliary Boiler (B001)	37.8 MMBTU/H	low sulfur fuel	0.004 LB/H	BACT-PSD			
OH-0370	TRUMBULL ENERGY CENTER	09/07/2017	6/19/2019 Auxiliary Boiler (B001)	37.8 MMBTU/H	Low sulfur fuel	0.0087 LB/H	BACT-PSD			
OH-0367	SOUTH FIELD ENERGY LLC	09/23/2016	6/19/2019 Auxiliary Boiler (B001)	99 MMBTU/H	natural gas/ultra low sulfur diesel	0.011 LB/H	BACT-PSD			
OH-0366	CLEAN ENERGY FUTURE - LORDSTOWN, LLC	08/25/2015	6/19/2019 Auxiliary Boiler (B001)	34 MMBTU/H	Low sulfur fuel	0.004 LB/H	BACT-PSD			
IL-0129	CPV THREE RIVERS ENERGY CENTER	07/30/2018	2/19/2019 Auxiliary Boiler	96 mmBtu/hr	Good combustion practice	0.1 LB/HR	BACT-PSD			
*WV-0032	BROOKE COUNTY POWER PLANT	09/18/2018	6/28/2022 Auxiliary Boiler	111.9 mmBtu/hr	Use of Natural Gas	0.02 LB/HR	BACT-PSD			
MI-0435	BELLE RIVER COMBINED CYCLE POWER PLANT	07/16/2018	2/19/2019 EUAUXBOILER: Auxiliary Boiler	99.9 MMBTU/H	Good combustion practices, low sulfur fuel	0.34 GR S/100 SCF	BACT-PSD			
MI-0435	BELLE RIVER COMBINED CYCLE POWER PLANT	07/16/2018	2/19/2019 EUFUELHTR1: Natural gas fired fuel heater	20.8 MMBTU/H	Low sulfur fuel	0.34 GR S/100 SCF	BACT-PSD			
MI-0435	BELLE RIVER COMBINED CYCLE POWER PLANT	07/16/2018	2/19/2019 EUFUELHTR2: Natural gas fired fuel heater	3.8 MMBTU/H	Low sulfur fuel	0.34 GR S/100 SCF	BACT-PSD			
*WV-0029	HARRISON COUNTY POWER PLANT	03/27/2018	6/28/2022 Auxiliary Boiler	77.8 mmBtu/hr	Use of Natural Gas	0.0132 LB/HR	BACT-PSD			
FL-0363	DANIA BEACH ENERGY CENTER	12/04/2017	3/4/2022 99.8 MMBtu/hr auxiliary boiler	99.8 MMBtu/hr	Clean fuels	0	BACT-PSD			
NY-0104	CPV VALLEY ENERGY CENTER	08/01/2013	9/28/2017 Auxiliary boiler	0	Natural gas.	0.0002 LB/MMBTU	BACT-PSD			
NY-0103	CRICKET VALLEY ENERGY CENTER	02/03/2016	9/28/2017 Auxiliary boiler	60 MMBTU/H	natural gas with maximum sulfur content 0.4 grains/100	1.1 10-4 LB/MMBTU	BACT-PSD			
PA-0311	MOXIE FREEDOM GENERATION PLANT	09/01/2015	12/21/2018 Auxilary Boiler	55.4 MMBtu/hr	•	0.0001 LB/MMBTU	BACT-PSD			
PA-0309	LACKAWANNA ENERGY CTR/JESSUP	12/23/2015	12/21/2018 Auxillary Boiler	13.31 MMBtu/hr		0.0001 LB/MMBTU	BACT-PSD			
PA-0310	CPV FAIRVIEW ENERGY CENTER	09/02/2016	12/21/2018 Auxilary boiler	92.4 MMBtu/hr	ULSD and good combustion practices	0.0011 LB/MMBTU	BACT-PSD			
PA-0307	YORK ENERGY CENTER BLOCK 2 ELECTRICITY GENERATION PR		12/21/2018 Auxilary Boiler	62.04 MCF/hr	Good combustion practices and low sulfur fuels	0 LB/MMBTU	BACT-PSD			
NJ-0085	MIDDLESEX ENERGY CENTER, LLC	07/19/2016	11/3/2016 AUXILIARY BOILER	4000 H/YR	USE OF NATURAL GAS A CLEAN BURNING AND LOW SULF	0.01 LB/H	BACT-PSD			
NJ-0084	PSEG FOSSIL LLC SEWAREN GENERATING STATION	03/10/2016	4/17/2018 Auxiliary Boiler firing natural gas	687 MMCFT/YR	Use of natural gas a low sulfur fuel	0.02 LB/H	BACT-PSD			
OH-0360	CARROLL COUNTY ENERGY	11/05/2013	4/1/2019 Auxiliary Boiler (B001)	99 MMBtu/H	only burning natural gas	0.02 LB/H	BACT-PSD			
MD-0045	MATTAWOMAN ENERGY CENTER	11/13/2015	5/13/2016 AUXILIARY BOILER	42 MMBTU/H	EXCLUSIVE USE OF NATURAL GAS, AND GOOD COMBUST	0.004 LB/MMBTU	BACT-PSD			
MD-0042	WILDCAT POINT GENERATION FACILITY	04/08/2014	8/12/2020 AUXILLARY BOILER	45 MMBTU/H	EXCLUSIVE USE OF PIPELINE QUALITY NATURAL GAS	0.004 LB/MMBTU	BACT-PSD			
OR-0050	TROUTDALE ENERGY CENTER, LLC	03/05/2014	5/5/2016 Auxiliary boiler	39.8 MMBTU/H	Good combustion practices; Utilize only natural gas.	0	BACT-PSD			
MA-0039	SALEM HARBOR STATION REDEVELOPMENT	01/30/2014	5/5/2016 Auxiliary Boiler	80 MMBTU/H		0.0009 LB/MMBTU	BACT-PSD			
PA-0296	BERKS HOLLOW ENERGY ASSOC LLC/ONTELAUNEE	12/17/2013	3/2/2020 Auxiliary Boiler	40 MMBTU/H		0.04 T/YR	N/A			
IA-0107	MARSHALLTOWN GENERATING STATION	04/14/2014	5/4/2016 auxiliary boiler	60.1 mmBtu/hr		0.0055 LB/H	BACT-PSD			
PA-0291	HICKORY RUN ENERGY STATION	04/23/2013	3/2/2020 AUXILIARY BOILER	40 MMBTU/H		0.0005 LB/MMBTU	OTHER CAS			
OH-0352	OREGON CLEAN ENERGY CENTER	06/18/2013	5/4/2016 Auxillary Boiler	99 MMBtu/H	only burning natural gas 0.5 GR/100 SCF	0.011 LB/H	BACT-PSD			
VA-0321	BRUNSWICK COUNTY POWER STATION	03/12/2013	6/19/2019 AUXILIARY BOILER	66.7 MMBTU/H	Pipeline quality natural gas and 5% oxidation of S toH2SC	0.0086 LB/MMBTU	BACT-PSD			

#### Table C-28. RBLC PM/PM<sub>10</sub>/PM<sub>2.5</sub> Summary for Paved Roads

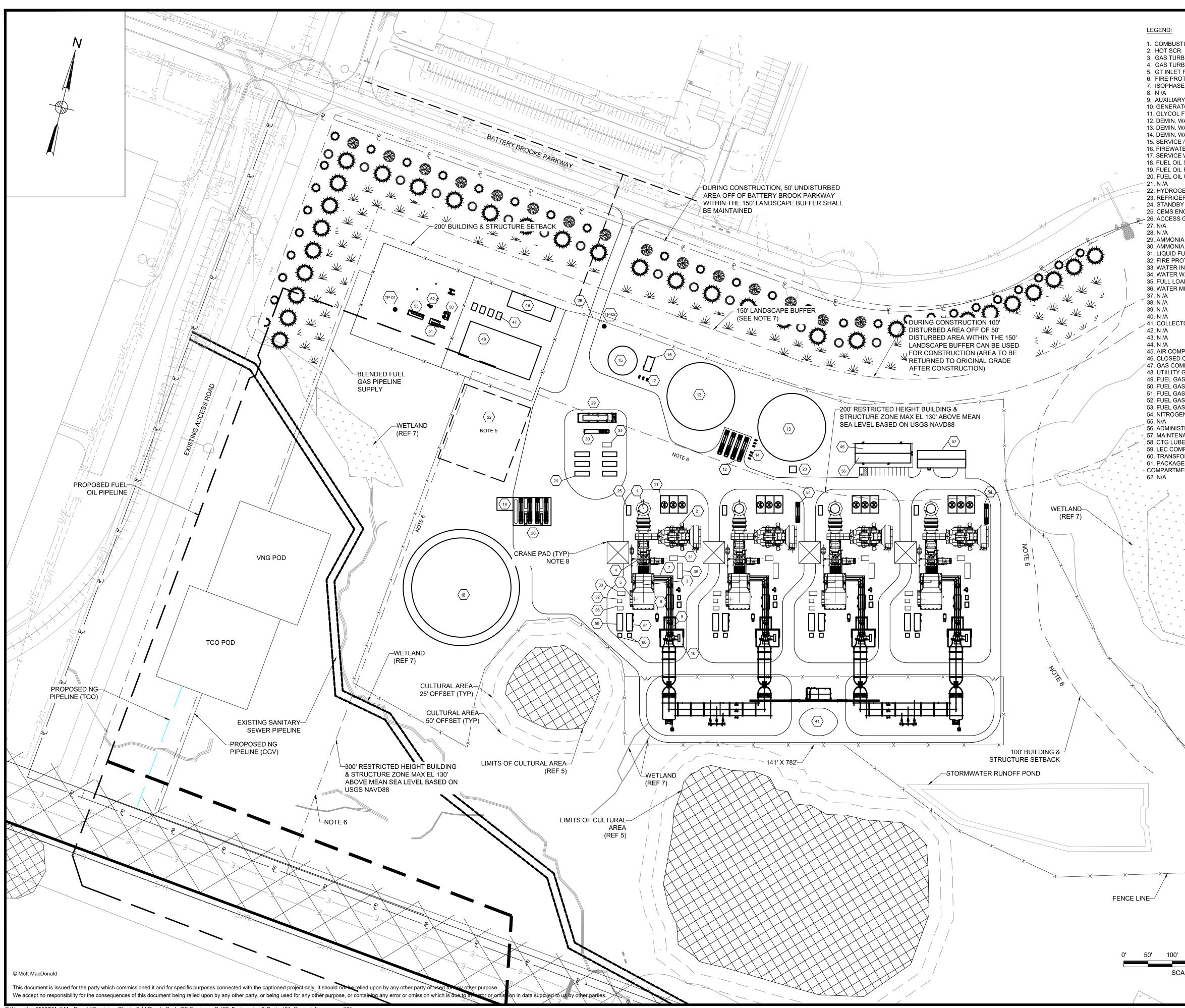
			Date Last			
BLCID	Facility Name	Issuance Date	Jpdated Process Name	Control Method Description	Emission Limit	BASIS
M - Filter		00/04/2024	2/4/2022 CN 422 CN 240 D		45.2 10/00	DACT DO
-0172	NUCOR STEEL ARKANSAS	09/01/2021	3/4/2022 SN-122 SN-210 Paved Roads	Water Sprays, sweeping,	15.2 LB/HR	BACT-PS
-0173	BIG RIVER STEEL LLC	01/31/2022	3/4/2022 Paved Roadways	Development and Implementation of Fugitive Dust Control Plan	2.8 TPY	BACT-PS
0173	MIDWEST FERTILIZER CORPORATION	06/04/2014	5/4/2016 FUGITIVE DUST FROM PAVED ROADS AND PARKING LOTS	PAVE ALL HAUL ROADS, DAILY SWEEPING WITH WET SUPPRESSION, PROMPT	90 % CONTROL	BACT-PS
0179	OHIO VALLEY RESOURCES, LLC	09/25/2013		ESS PAVE ALL PLANT HAUL ROADS, DAILY SWEEPING AND WET SUPPRESSION, PR	90 % CONTROL	BACT-PS
0180	MIDWEST FERTILIZER CORPORATION	06/04/2014	5/5/2016 FUGITIVE DUST FROM PAVED ROADS AND PARKING LOTS	PAVE ALL HAUL ROADS, DAILY SWEEPING WITH WET SUPPRESSION, PROMPT	90 % CONTROL	BACT-PS BACT-PS
-0109	FRITZ WINTER NORTH AMERICA, LP	10/24/2016	1/25/2021 Paved Roadways (EU76)	The permittee shall vacuum sweep the pavement at least weekly, except dur	0	
-0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Paved Roads & amp; Satellite Coil Yard (EPs 04-01 & amp; 04		0	BACT-PS
0-0089 0181	OWENS CORNING INSULATION SYSTEMS, LLC RESOLUTE FP US INC CATAWBA LUMBER MILL	05/12/2016 11/03/2017	5/11/2018 haul roads 10/4/2018 Roads	vacuum sweep, wash, etc Good housekeeping practices.	0.13 LB/VMT	BACT-PS BACT-PS
0359			5/23/2023 Paved Roads		/	BACT-PS
0359	NUCOR STEEL NUCOR STEEL BRANDENBURG	03/30/2023 07/23/2020	1/25/2021 EP 14-01 - Paved Roadways	comply with fugitive dust control plan	0	BACT-PS
				surface improvements (pavement), sweeping (good work practice) and water	0	BACT-PS
0116	NOVELIS CORPORATION - GUTHRIE	07/25/2022	4/25/2023 EU 020 - Paved Roads	Sweeping (minimum of monthly), speed limit, paving, and reasonable precau	•	
-0041	CPV ST. CHARLES	04/23/2014	4/26/2018 ROADWAYS	: Device of all along an de thet will be used for any methodial and any dust trans-	0	N/A
-0368	PALLAS NITROGEN LLC	04/19/2017	6/19/2019 Paved Roadways (F001)	i. Paving of all plant roads that will be used for raw material and product trans	13.2 T/YR	BACT-PS
-0378 -0381	PTTGCA PETROCHEMICAL COMPLEX	12/21/2018	6/19/2019 Facility Roadways (F001)	i.Pave all in-plant haul roads and parking areas;ii.Implement best managemen	1.88 T/YR	BACT-PS
	NORTHSTAR BLUESCOPE STEEL, LLC	09/27/2019	8/9/2021 Plant Roadways & amp; Parking Areas (F005)	Paved: sweeping, vacuuming, washing with water, and posted speed limits to	16.74 T/YR	BACT-PS
-0387	INTEL OHIO SITE	09/20/2022	4/25/2023 Facility paved roadways and parking areas	Pave all roadways and parking areas and implement best management practi	0.8 T/YR	BACT-PS
0156	NORTHSTAR AGRI IND ENID	07/31/2013	5/11/2018 Haul Roads	Paved Haul Roads	0	BACT-PS
0193	MERCEDES BENZ VANS, LLC	04/15/2016	9/10/2021 Paved Roads	Proper Maintenance of all roads. Fugitive dust minimization.	0	BACT-PS
0310	NEMADJI TRAIL ENERGY CENTER	07/08/2021	9/16/2022 Haul Roads (F01)	All roads and parking lots within the property boundary must be paved, 5 mp	520 TRUCK TRIPS/YR	BACT-P
- Total						
0106	CF INDUSTRIES NITROGEN, LLC - PORT NEAL NITROGEN COM		5/4/2016 New Plant Haul Road	paved road, water flushing, and sweeping	0	BACT-P
-0117	SHELL ROCK SOY PROCESSING	03/17/2021	4/20/2021 Paved Road Fugitives	sweeping	2.97 TONS PER YEAR	BACT-P
129	CPV THREE RIVERS ENERGY CENTER	07/30/2018	2/19/2019 Roadways	Paving is required for roads used by trucks transporting bulk materials.	10 % OPACITY	BACT-P
130	JACKSON ENERGY CENTER	12/31/2018	4/16/2020 Roadways		10 PERCENT OPACITY	BACT-P
132	NUCOR STEEL KANKAKEE, INC.	01/25/2021	8/16/2022 New and Modified Roadways	Roadways shall be paved; speed limit posting of 15 miles/hour; best manage	0	BACT-P
133	LINCOLN LAND ENERGY CENTER	07/29/2022	12/6/2022 Roadways		10 PERCENT OPACITY	BACT-P
0317	RIVERVIEW ENERGY CORPORATION	06/11/2019	5/26/2021 Paved roads	Fugitive dust control plan	1 MIN	BACT-P
0034	ABENGOA BIOENERGY BIOMASS OF KANSAS (ABBK)	05/27/2014	3/1/2023 Paved Haul Roads	Truck traffic fugitive control strategy and monitoring plan, including sweeping	148 TRUCKS/DAY	BACT-P
0379	SHINTECH PLAQUEMINES PLANT 1	05/04/2021	3/4/2022 Fugitive Dust (Paved Roads)	Paving plant road as much as practicable.	0.08 LB/HR	BACT-P
-0310	NEMADJI TRAIL ENERGY CENTER	07/08/2021	9/16/2022 Haul Roads (F01)	All roads and parking lots within the property boundary must be paved, 5 mp	520 TRUCK TRIPS/YR	BACT-PS
-0380	AMG VANADIUM LLC	08/07/2019	8/9/2021 Paved Roadways (F001)	Pave all in-plant haul roads and parking areas. Implement best management $\boldsymbol{\mathfrak{g}}$	0.28 T/YR	BACT-PS
1 <sub>10</sub> - Filte	erable					
-0376	IRONUNITS LLC - TOLEDO HBI	02/09/2018	6/19/2019 Paved roads (F001)	water flushing and sweeping	0.63 T/YR	BACT-PS
-0381	NORTHSTAR BLUESCOPE STEEL, LLC	09/27/2019	8/9/2021 Plant Roadways & amp; Parking Areas (F005)	Paved: sweeping, vacuuming, washing with water, and posted speed limits to	3.55 T/YR	BACT-PS
-0387	INTEL OHIO SITE	09/20/2022	4/25/2023 Facility paved roadways and parking areas	Pave all roadways and parking areas and implement best management practi	0.16 T/YR	BACT-PS
0181	RESOLUTE FP US INC CATAWBA LUMBER MILL	11/03/2017	10/4/2018 Roads	Good housekeeping practices.	0.03 LB/VMT	BACT-PS
1 <sub>10</sub> - Tota	al					
0172	NUCOR STEEL ARKANSAS	09/01/2021	3/4/2022 SN-122 SN-210 Paved Roads	Water Sprays, sweeping,	3.9 LB/HR	BACT-P
0173	BIG RIVER STEEL LLC	01/31/2022	3/4/2022 Paved Roadways	Development and Implementation of Fugitive Dust Control Plan	0.6 TPY	BACT-P
0106	CF INDUSTRIES NITROGEN, LLC - PORT NEAL NITROGEN COM	P 07/12/2013	5/4/2016 New Plant Haul Road	paved road, water flushing, and sweeping	0	BACT-P
0132	NUCOR STEEL KANKAKEE, INC.	01/25/2021	8/16/2022 New and Modified Roadways	Roadways shall be paved; speed limit posting of 15 miles/hour; best manage	0	BACT-PS
0173	MIDWEST FERTILIZER CORPORATION	06/04/2014	5/4/2016 FUGITIVE DUST FROM PAVED ROADS AND PARKING LOTS	PAVE ALL HAUL ROADS, DAILY SWEEPING WITH WET SUPPRESSION, PROMPT	90 % CONTROL	BACT-P
0179	OHIO VALLEY RESOURCES, LLC	09/25/2013	5/4/2016 PAVED ROADWAYS AND PARKING LOTS WITH PUBLIC ACCE	ESS PAVE ALL PLANT HAUL ROADS, DAILY SWEEPING AND WET SUPPRESSION, PR	90 % CONTROL	BACT-P
0180	MIDWEST FERTILIZER CORPORATION	06/04/2014	5/5/2016 FUGITIVE DUST FROM PAVED ROADS AND PARKING LOTS	PAVE ALL HAUL ROADS, DAILY SWEEPING WITH WET SUPPRESSION, PROMPT	90 % CONTROL	BACT-P
0317	RIVERVIEW ENERGY CORPORATION	06/11/2019	5/26/2021 Paved roads	Fugitive dust control plan	1 MIN	BACT-P
0324	MIDWEST FERTILIZER COMPANY LLC	05/06/2022	8/16/2022 Fugitive dust from paved roads and parking lots		0	BACT-P
0034	ABENGOA BIOENERGY BIOMASS OF KANSAS (ABBK)	05/27/2014	3/1/2023 Paved Haul Roads	Truck traffic fugitive control strategy and monitoring plan, including sweeping	148 TRUCKS/DAY	BACT-P
0109	FRITZ WINTER NORTH AMERICA, LP	10/24/2016	1/25/2021 Paved Roadways (EU76)	The permittee shall vacuum sweep the pavement at least weekly, except dur	0	BACT-PS
0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Paved Roads & amp; Satellite Coil Yard (EPs 04-01 & amp; 04		0	BACT-P
0379	SHINTECH PLAQUEMINES PLANT 1	05/04/2021	3/4/2022 Fugitive Dust (Paved Roads)	Paving plant road as much as practicable.	0.08 LB/HR	BACT-P
0382	BIG LAKE FUELS METHANOL PLANT	04/25/2019	3/4/2022 Paved Roads (FUG0004)	Proper maintenance	0	BACT-P
-0368	PALLAS NITROGEN LLC	04/19/2017	6/19/2019 Paved Roadways (F001)	i.Paving of all plant roads that will be used for raw material and product trans	2.6 T/YR	BACT-P
-0378	PTTGCA PETROCHEMICAL COMPLEX	12/21/2018	6/19/2019 Facility Roadways (F001)	i.Pave all in-plant haul roads and parking areas;ii.Implement best manageme	0.38 T/YR	BACT-P
5570	AMG VANADIUM LLC	08/07/2019	8/9/2021 Paved Roadways (F001)	Pave all in-plant haul roads and parking areas. Implement best management r	0.06 T/YR	BACT-P
1-0380						

#### Table C-28. RBLC PM/PM<sub>10</sub>/PM<sub>2.5</sub> Summary for Paved Roads

		Permit	Date Last			
RBLCID	Facility Name	Issuance Date	Updated Process Name	Control Method Description	Emission Limit	BASIS
PM <sub>2.5</sub> - Filt	erable					
N-0324	MIDWEST FERTILIZER COMPANY LLC	05/06/2022	8/16/2022 Fugitive dust from paved roads and parking lots		0	BACT-PSD
(S-0034	ABENGOA BIOENERGY BIOMASS OF KANSAS (ABBK)	05/27/2014	3/1/2023 Paved Haul Roads	Truck traffic fugitive control strategy and monitoring plan, including sweeping	148 TRUCKS/ DAY	BACT-PSD
DH-0376	IRONUNITS LLC - TOLEDO HBI	02/09/2018	6/19/2019 Paved roads (F001)	water flushing and sweeping	0.15 T/YR	BACT-PSD
H-0381	NORTHSTAR BLUESCOPE STEEL, LLC	09/27/2019	8/9/2021 Plant Roadways & amp; Parking Areas (F005)	Paved: sweeping, vacuuming, washing with water, and posted speed limits to	0.75 T/YR	BACT-PSD
DH-0387	INTEL OHIO SITE	09/20/2022	4/25/2023 Facility paved roadways and parking areas	Pave all roadways and parking areas and implement best management practi	0.04 T/YR	BACT-PSD
C-0181	RESOLUTE FP US INC CATAWBA LUMBER MILL	11/03/2017	10/4/2018 Roads	Good housekeeping practices.	0.01 LB/VMT	BACT-PSD
M <sub>2.5</sub> - Tot	tal					
R-0172	NUCOR STEEL ARKANSAS	09/01/2021	3/4/2022 SN-122 SN-210 Paved Roads	Water Sprays, sweeping,	0.5 LB/HR	BACT-PSD
R-0173	BIG RIVER STEEL LLC	01/31/2022	3/4/2022 Paved Roadways	Development and Implementation of Fugitive Dust Control Plan	0.2 TPY	BACT-PSD
-0106	CF INDUSTRIES NITROGEN, LLC - PORT NEAL NITROGEN C	COMP 07/12/2013	5/4/2016 New Plant Haul Road	paved road, water flushing, and sweeping	0	BACT-PSD
-0132	NUCOR STEEL KANKAKEE, INC.	01/25/2021	8/16/2022 New and Modified Roadways	Roadways shall be paved; speed limit posting of 15 miles/hour; best manage	0	BACT-PSD
V-0173	MIDWEST FERTILIZER CORPORATION	06/04/2014	5/4/2016 FUGITIVE DUST FROM PAVED ROADS AND PARKING LO	TS PAVE ALL HAUL ROADS, DAILY SWEEPING WITH WET SUPPRESSION, PROMPT	90 % CONTROL	BACT-PSD
V-0179	OHIO VALLEY RESOURCES, LLC	09/25/2013	5/4/2016 PAVED ROADWAYS AND PARKING LOTS WITH PUBLIC A	ACCESS PAVE ALL PLANT HAUL ROADS, DAILY SWEEPING AND WET SUPPRESSION, PR	90 % CONTROL	BACT-PSD
V-0180	MIDWEST FERTILIZER CORPORATION	06/04/2014	5/5/2016 FUGITIVE DUST FROM PAVED ROADS AND PARKING LO	TS PAVE ALL HAUL ROADS, DAILY SWEEPING WITH WET SUPPRESSION, PROMPT	90 % CONTROL	BACT-PSD
1-0317	RIVERVIEW ENERGY CORPORATION	06/11/2019	5/26/2021 Paved roads	Fugitive dust control plan	1 MIN	BACT-PSD
Y-0109	FRITZ WINTER NORTH AMERICA, LP	10/24/2016	1/25/2021 Paved Roadways (EU76)	The permittee shall vacuum sweep the pavement at least weekly, except dur	0	BACT-PSD
<i>-</i> 0115	NUCOR STEEL GALLATIN, LLC	04/19/2021	5/26/2021 Paved Roads & amp; Satellite Coil Yard (EPs 04-01 & am	p; 04-0 <sup>2</sup> Sweeping & Watering	0	BACT-PSD
A-0382	BIG LAKE FUELS METHANOL PLANT	04/25/2019	3/4/2022 Paved Roads (FUG0004)	Proper maintenance	0	BACT-PSD
H-0378	PTTGCA PETROCHEMICAL COMPLEX	12/21/2018	6/19/2019 Facility Roadways (F001)	i.Pave all in-plant haul roads and parking areas;ii.Implement best managemen	0.09 T/YR	BACT-PSD
H-0380	AMG VANADIUM LLC	08/07/2019	8/9/2021 Paved Roadways (F001)	Pave all in-plant haul roads and parking areas. Implement best management r	0.01 T/YR	BACT-PSD

## Appendix D Plot Plan





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	Notes									
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	Legen	d								
PRESSOR/DRYER/RECEIVER COOILING WATER PUMPS MPRESSORS GAS METERING YARD S CONDITIONING AREA S FILTER SKID/ABSOLUTE SEPARATOR S HEATER S CHROMATOGRAPH S PRESSURE REGULATION ASSEMBLY EN STORAGE TRAILER TRATION/CONTROL ROOM BUILDING IANCE SHOP/WAREHOUSE BUILDING E OIL COOLER IPARTMENT DRMERS ED ELECTRICAL AND ELECTRONIC CONTROL ENT (PEECC)		- E E		P 	- PROP FENCE	E JRAL ARI				
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## Appendix E Air Dispersion Modeling Files



## Appendix F Background Emissions Inventory



## Appendix G Air Quality Impacts, Contour Map



## Appendix H Site Suitability and Environmental Justice Evaluation





## Dominion Energy Chesterfield Energy Reliability Center

Environmental Justice Screening Phase 1 Report

July 28, 2023

Delivering a better world

#### Prepared for:

Dominion Energy

#### Prepared by:

AECOM 4840 Cox Road Glen Allen, VA 23060 aecom.com

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# **1. Executive Summary**

On behalf of the Virginia Electric & Power Company, d/b/a Dominion Energy Virginia ("Dominion Energy" or "Company"), AECOM Technical Services, Inc. ("AECOM") has conducted this analysis of the Chesterfield Energy Reliability Center ("CERC" or "Project"). If approved, the Project would consist of four natural gas turbines with a total generation capacity of approximately 1,000 megawatts—enough to power up to 250,000 homes. The station would serve as an "always ready" resource that could provide power when customer demand for electricity is particularly high and/or other energy resources are constrained.

To perform this Environmental Justice Screening Phase 1 Report, the following topics were evaluated: a description of the Project and study area; identification of geographic areas that meet the Commonwealth of Virginia's definition for an environmental justice community, and a summary of outreach and community engagement performed related to the Project at the time of the analysis. A "Phase 2" report will be prepared and subsequently submitted, which will include an impact analysis informed by the air modeling process and updates on outreach and community engagement activities, which are planned to continue through development and construction of the Project.

#### **Geographic and Demographic Analysis**

The CERC is proposed to be sited on Battery Brooke Parkway, adjacent to Dominion Energy's existing Chesterfield Power Station complex. Chesterfield Power Station is situated alongside the James River within Chesterfield County. AECOM assessed a study area that encompasses a one-mile radius around the proposed project footprint.

Based on desktop screening and visual inspection of aerial imagery, the extent of the 1-mile radius study area within Chesterfield County consists of primarily industrial areas. The western edge of the study area contains residential areas, a mile from the proposed facility. The study area also includes municipal facilities (e.g., the Proctor's Creek Wastewater Treatment Plant), recreation facilities such as a public boating access point, Henricus Historical Park, the Dutch Gap Conservation Area, Richmond National Battlefield Park, and the James River.

Dominion Energy recognizes that environmental justice communities must be identified so they can contribute and have meaningful involvement in the project development process. Thus, AECOM undertook a Phase 1 screening process to identify environmental justice communities in a one-mile radius surrounding the proposed CERC to inform the Company's initial public engagement efforts.

The demographic analysis investigates the proportion of low-income residents and residents of color within each Census Block Group ("CBG") relative to benchmarks prescribed by statute. Relevant federal guidance is used to identify meaningfully higher greater concentrations of vulnerable age groups and linguistically isolated households. This report uses the smallest unit of analysis for which US Census Bureau data are consistently available—the CBG.

- Low Income Populations: Two of four CBGs within the study area meet the VEJA definition for a low-income community.
- Populations of Color: Three of four CBGs within the study area meet the VEJA definition for a community of color. The CBG which contains the proposed facility appears to be a primarily Hispanic community of color (21%). Two additional CBGs intersecting with the study area were also identified as African American and Hispanic communities of color.
- Linguistically Isolated Populations: One of four CBGs within the study area has a proportion of limited English-speaking residents exceeding that of the Commonwealth.
- Populations Under Age 5: In two of four CBGs within the study area, the proportion of under-5 residents exceeds that of the Commonwealth.
- Populations Over Age 64: In one of four CBGs within the study area, the percentage of the population over age 64 exceeds that of the Commonwealth.

#### Public Outreach and Participation

Leading up to and continuing through regulatory processes (i.e., permitting) Dominion has and will continue to engage with a broad range of stakeholders who have a variety of interests related to the project and its potential effects. A project website, newspaper advertisement, project fact-sheet, mailed communications, and materials translated into Spanish and Korean have been deployed to share project information with the local community. An initial open house was help on June 27 at Bellwood Elementary School; 85 people were in attendance. Additionally, project information has been sent to potentially interested Native American Tribes and will continue as Dominion has dedicated team members facilitating tribal engagement.

It is recognized that EJ populations must have the opportunity to contribute and have meaningful involvement in the project development process. For this reason, recommended next steps for Dominion Energy include:00203:54 PMCOPY

- Develop and implement a Public Outreach Plan, in coordination with the Virginia Department of Environmental Quality air permitting process and air modeling analysis, with specific focus on EJ considerations and efforts to ensure opportunities for meaningful involvement by local EJ communities. This includes making communications inclusive by considering language barriers, literacy, and computer/internet access; and
- Establish ongoing and effective public engagement, with a focus on continued neighborhood meetings
  around the Chesterfield Energy Reliability Center project site. This engagement should: (1) encourage public
  input, (2) discuss any community concerns, (3) proactively engage diverse audiences and members of local
  EJ communities, Native American tribes, and organizations that represent underserved populations to solicit
  stakeholder feedback, and (4) identify potential solutions and/or mitigation options as necessary.

# 2. Introduction

Dominion Energy is proposing to construct the CERC consisting of four new natural gas simple cycle combustion turbines ("SCCT") peaking units ("the Project") to be located on an approximate 94-acre parcel within the James River Industrial Center in Chesterfield County, which is approximately 4 miles northeast of Chester, Virginia. The Project would be located adjacent to, and considered a single stationary source with, Dominion Energy's existing Chesterfield Power Station. Based on the emission estimates, the Project would be a "major modification" at an existing major source under Title I of the Clean Air Act (CAA). Dominion is applying to the Virginia Department of Environmental Quality (VADEQ) for a prevention of significant deterioration (PSD) and stationary source air construction permit as required by VADEQ.

The Commonwealth of Virginia's General Assembly adopted the Virginia Environmental Justice Act ("VEJA") in July 2020 and amended Va. Code § 10.1-1182 to redefine environmental justice ("EJ") consistent with the VEJA. The General Assembly also expanded VADEQ's purposes as listed in §10.1-1183, adding "to further environmental justice and enhance public participation in the regulatory and permitting processes" and "to ensure the fair treatment and meaningful involvement of all people regardless of race, color, national origin, faith, disability, or income with respect to the administration of environmental laws, regulations, and policies."<sup>1</sup> All three statutory updates became effective on July 1, 2020.

The VEJA defines "Environmental Justice" and "Environmental Justice Community" as follows:

- "Environmental Justice" means the fair treatment and meaningful involvement of every person, regardless of race, color, national origin, income, faith, or disability, regarding the development, implementation, or enforcement of any environmental law, regulation, or policy. Va. Code § 2.2-234.
  - "Fair treatment" means the equitable consideration of all people whereby no group of people bears a disproportionate share of any negative environmental consequence resulting from an industrial, governmental, or commercial operation, program, or policy. *Id.*

<sup>&</sup>lt;sup>1</sup> <u>Va Code, 2022;</u> <u>Va. Code, 2020</u>

- "Meaningful involvement" means the requirements that (i) affected and vulnerable community residents have access and opportunities to participate in the full cycle of the decision-making process about a proposed activity that will affect their environment or health and (ii) decision makers will seek out and consider such participation, allowing the views and perspectives of community residents to shape and influence the decision. *Id.*
- "Environmental Justice Community" means any low-income community or community of color. Id.
  - "Low-income community" means any census block group in which 30 percent or more of the population is composed of people with low income. *Id.*
  - "Community of color" means any geographically distinct area where the population of color, expressed as a percentage of the total population of such area, is higher than the population of color in the Commonwealth expressed as a percentage of the total population of the Commonwealth. However, if a community of color is composed primarily of one of the groups listed in the definition of "population of color," the percentage population of such group in the Commonwealth shall be used instead of the percentage population of color in the Commonwealth. *Id.*

The Company is addressing EJ in accordance with federal guidelines, the VEJA, and related statutes, as well as site suitability under Va. Code §10.1-1307.E. Additionally, the VADEQ has proposed, but not yet finalized, guidance for implementing the new statutes.<sup>2</sup> The Company will take this draft guidance into consideration as it proceeds through the permitting process.

According to U.S. Environmental Protection Agency ("EPA") guidance, EJ analyses must address disproportionately high and adverse impacts on minority populations (i.e., who are non-white, or who are white but have Hispanic ethnicity) when minority populations represent over 50 percent of the population of an affected area or when the percentage of minority or low-income populations in the affected area is "meaningfully greater" than the minority percentage in the "reference population"—defined as the population of a larger area in which the affected population resides (i.e., a county, state, or region depending on the geographic extent of the analysis area). Low-income populations are those that fall within the annual statistical poverty thresholds from the U.S. Department of Commerce, Bureau of the Census, Population Reports, Series P-60 on Income and Poverty (EPA 2016a).

On behalf of Dominion Energy AECOM has conducted this EJ analysis of the Project. This "Phase 1" report focuses on screening the study area to identify communities with potential EJ concerns within and proximate to the initial study area. The following topics are examined in this report: the description of the study area; identification of geographic areas that meet the definition for an EJ Community pursuant to the VEJA, and a summary of relevant outreach and community engagement performed to date. A "Phase 2" report will be prepared and subsequently submitted, which will include an impact analysis informed by the air modeling process and updates on outreach and community engagement activities, which are planned to continue through development and construction of the Project.

# 3. Methodology

This analysis uses definitions provided in the VEJA for different categories of EJ populations (Va. Code §§ 2.2-234, 2.2-235). Where the VEJA is silent, this analysis follows federal guidance and recommended methodologies outlined by the Council on Environmental Quality ("CEQ") and the Federal Interagency Working Group on Environmental Justice and National Environmental Policy Act Committee (USEPA 2016b). The geographic study area for this EJ analysis is a one-mile buffer of the Project (Figure 1, Attachment A).

The CBG is used as the primary unit of analysis because it is the smallest geographic unit for which U.S. Census Bureau demographic and economic data is consistently available, providing information at a sub-county level. The U.S. Census Bureau American Community Survey 5-year Estimates (U.S. Census Bureau 2021a, b) was used to collect demographic data for the state, counties, and CBGs.

<sup>&</sup>lt;sup>2</sup> Guidance Memo No. 23-XXXX – Environmental Justice in the Permitting Process (Draft) (<u>https://www.deq.virginia.gov/get-involved/environmental-justice</u>).

Virginia defines "population of color" as a group of individuals belonging to one or more of the following racial and ethnic categories: "Black, African American, Asian, Pacific Islander, Native American, other, nonwhite race, mixed race, Hispanic, Latino or linguistically isolated" (Va. Code §§ 2.2-234).

Virginia identifies a minority population, or what it terms a "community of color," if an analysis area has a greater "population of color" percentage than that of the state as a whole. If a "community of color" is composed primarily of a specific "population of color," then the statewide population percentage of that single group is used instead of the percentage for the total "population of color" (Va. Code § 2.2-234). Virginia's criteria for an identified "community of color" or "population of color" and what constitutes an EJ population have a lower threshold and are therefore more inclusive than the federal guidance suggests. The same approach is used to identify linguistically isolated groups (i.e., the percent of people or households in an area in which all members over age 14 speak a language other than English and also speak English less than very well), although linguistic isolation is considered separately in federal guidance.<sup>3</sup>

Virginia statute defines a "low-income community" as any CBG in which 30 percent or more of the population is composed of low-income residents. It defines low income as "having an annual household income equal to or less than the greater of (i) an amount equal to 80 percent of the median income of the area in which the household is located, as reported by the Department of Housing and Urban Development, and (ii) 200 percent of the Federal Poverty Level" (Va. Code § 2.2-234).

This EJ analysis also assesses the potential for other socioeconomic indicators that could potentially lead to disproportionate environmental impacts, including age-based vulnerabilities (i.e., the percent of the people in a CBG "under age 5" or "over age 64"). There is no equivalent VEJA definition for these groups, so age-based communities are identified using the federal guidance of a meaningfully greater threshold. A CBG is considered to contain an elevated age-based population when the percentage of the population either below age 5 or above age 64 exceeds 10 percent greater than the corresponding state averages.

This EJ analysis also considers potential effects on Native American Tribes ("Tribes"). Tribes with established government-to-government relationship with the United States ("federally-recognized"), or with the Commonwealth of Virginia ("state-recognized"), and with potential interest in the study area, are identified using the U.S. Department of Housing and Urban Development (USHUD) Tribal Directory Assessment Tool (TDAT), state government websites, as well as historic research.

As per VEJA, "meaningful involvement" entails that (i) affected and vulnerable community residents have access and opportunities to participate in the full cycle of the decision-making process about a proposed activity that will affect their environment or health and (ii) decision makers will seek out and consider such participation, allowing the views and perspectives of community residents to shape and influence the decision. Community engagement to representatives of local tribal leadership and impacted EJ communities began in May 2023 and will continue throughout the duration of this project. Details of community engagement efforts are described in Section 4 of the report.

## **3.1 Project Description**

The Project would consist of constructing four dual fuel simple-cycle combustion turbines (SCCT) firing primarily on pipeline quality natural gas, with No. 2 fuel oil with a maximum sulfur content of 15 parts per million (ppm) (fuel oil) as an alternative fuel source. Additionally, the SCCTs will be capable of operating on an advanced gaseous fuel blend consisting of natural gas with up to 10% hydrogen (H2 fuel blend).

## 3.2 Study Area

The Chesterfield Power Station is alongside the James River in Chesterfield, Virginia. The CERC project is proposed to be sited on Battery Brooke Parkway, on Dominion owned property adjacent to the existing power station. The

<sup>&</sup>lt;sup>3</sup> The USEPA's definition of a population of color is analogous to Virginia's definition of population of color but does not include linguistically isolated individuals; however, EPA EJScreen includes a separate demographic indicator for linguistic isolation, which it terms "limited English speaking".

proposed CERC location is currently undeveloped, consisting of open pasture, mixed forest, and planted pine. The site is within Chesterfield County's U.S. Route One Corridor Technology Zone, a 3,800-acre zone designed to encourage investment, job growth, rehabilitation of the area's existing older commercial and industrial structures, and revitalization through increased economic activity.<sup>4</sup>

The study area (Figure 1) is represented by a one-mile radius around the Project's proposed fence line as a preliminary radius. The radius will be revisited as needed by the Project team as site-specific air modeling progresses.



Figure 1: Study Area Map with One-Mile Radius Around Project Site Source: <u>USEPA, 2023a</u>

Based on desktop screening and visual inspection of aerial imagery, the extent of the 1-mile radius study area within Chesterfield County consists of primarily industrial areas. The western side of the study area contains some small residential areas; these neighborhoods are almost a mile from the proposed facility. The study area also includes municipal facilities (e.g., the Proctor's Creek Wastewater Treatment Plant), recreation facilities such as a public boating access point, Henricus Historical Park, the Dutch Gap Conservation Area, Richmond National Battlefield Park, and the James River.

As seen in **Error! Reference source not found.**, Zoning Districts Map, land use within the study area is primarily z oned for industrial use with small pockets of residential and public use zoning. Areas labelled as "vacant" on the map are nonresidential development.

<sup>&</sup>lt;sup>4</sup> https://chesterfieldbusiness.com/business-assistance/incentive-programs/technology-zone-program/



#### Figure 2: Zoning Districts Map

Source: AECOM with data from Chesterfield County, 2023 and Henrico County, 2023

Sensitive receptors are places frequented by those who are at a heightened risk of negative health outcomes due to exposure to air emissions.<sup>5</sup> While there appear to be no sensitive receptors within the study area, several sensitive receptor locations are present beyond the study area boundary, primarily to the west and the south, in the form of a school and several daycare facilities serving the under 5 population (Figure 3, Sensitive Receptor Map) approximately over 2 miles from the site.

<sup>&</sup>lt;sup>5</sup> "Sensitive receptors include, but are not limited to, hospitals, schools, daycare facilities, elderly housing and convalescent facilities. These are areas where the occupants are more susceptible to the adverse effects of exposure to toxic chemicals, pesticides, and other pollutants. Extra care must be taken when dealing with contaminants and pollutants in close proximity to areas recognized as sensitive receptors." (USEPA. 2023)

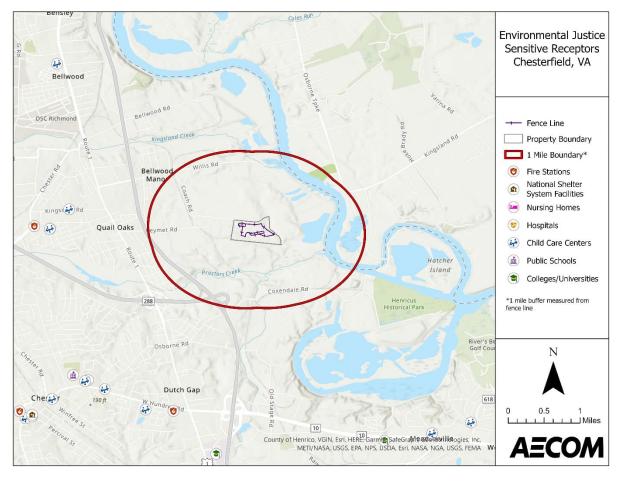


Figure 3: Sensitive Receptor Map Source: AECOM

## **3.3 Geographic Unit of Analysis**

This analysis uses the CBG as the primary unit of analysis because it is the smallest unit for which US Census Bureau data are consistently available. The analysis references USEPA's EJScreen and the US Census Bureau's 2021 American Community Survey (ACS) data, each of which reports EJ and social vulnerability data on the CBG level.<sup>6</sup>

Although CBGs are the smallest geographic areas where consistent demographic data is available, it should be noted that certain CBGs are relatively large and have boundaries extending well beyond the current study area. Additionally, data aggregated to the CBG-level does not account for where, within each CBG boundary, the segments of the population that meet EJ Community definitions are located. Inclusion in this screening-level report does not imply all individuals within each CBG are all EJ Community members, nor does it imply all residents will necessarily be affected by the Project.

# 4. Identification of Environmental Justice Communities

Six (6) 2020 US Census CBG boundaries intersect with the study area: four in Chesterfield County and two in Henrico County. Two of the six intersecting CBGs only do so by a small margin and based on visual inspection of aerial imagery these small margins have no residential populations. Therefore, this analysis will move forward discussing only the four CBGs that have significant areas of overlap within the 1-mile buffer. For completeness, the table in Appendix A displays demographic data for all six CBGs and Appendix B and C provides an approximate aerial view of the intersecting areas.

The results of the screening indicate three of the four primary CBGs within the study area meet the definition for an EJ Community according to the VEJA. The communities include: one community of color, one low-income community, and one area that is a community of color, low-income, and limited English speaking.

Figure 2 depicts CBG areas intersecting with the study area and identifies those that meet the definition for EJ communities. It should be noted that the designation for an EJ community in this report refers to the entire CBG area, however, human populations are not evenly distributed across the areas shown. As noted in the study area description in Section 2.2, there are few residential areas within the 1-mile buffer area shown.

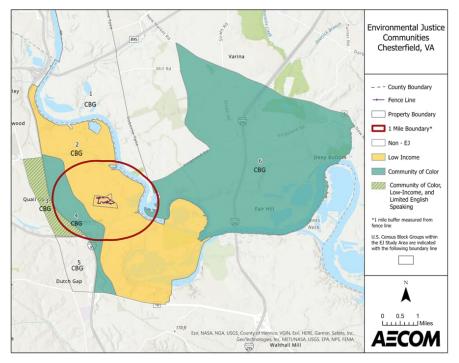


Figure 2: Environmental Justice Communities Map<sup>7</sup> Source: AECOM

Table 1 summarizes, in more detail, the total populations of color and low-income populations and other demographic data for CBGs in the study area. These are summarized alongside the reference population data for the Commonwealth and the respective counties.

<sup>&</sup>lt;sup>7</sup> Figure Note: The VEJA definition of populations of color is represented by the combined "community of color" and "limited English speaking" block groups on the map.

		Total Pe	eople of Color		ncome lation		l English aking		High School cation	Under	5 Years	Over 64 Years		
		%	#	%	#	%	#	%	#	%	#	%	#	
Virginia		39.4%	3,381,720	23.6%	1,966,819	2.7%	213,924	10.7%	612,820	5.8%	501,494	15.5%	1,328,600	
Chesterfield County		40.0%	143,842	18.1%	64,341	2.3%	7,417	7.9%	18,045	6.0%	21,413	15.0%	53,961	
Henrico C	ounty	48.5%	<b>48.5%</b> 161,097		72,036	2.9%	9,396	8.5%	19,203	6.0%	19,872	15.5%	51,523	
Map ID	Census Block Group (CBG)													
CBG1	CT 2016.02 / BG 4	18.8%	202	6.8%	73	0.0%	0	0.0%	0	2.0%	21	24.6%	264	
CB22	CT 1004.03/ BG 3	38.6%	338	73.5%	643	0.0%	0	20.7%	277	11.0%	96	5.6%	49	
CBG3	CT 1004.07/ BG 1	79.5%	549	70.2%	485	26.0%	113	20.5%	67	21.9%	151	5.9%	41	
CBG4	CT 1004.03/ BG 4	49.5%	405	15.2%	124	0.0%	0	5.2%	34	0.0%	0	6.7%	55	

#### Table 1: Environmental Justice Community Demographic Summary Table

Table Note: Yellow highlighted CBGs are those that are considered EJ communities as per VEJA due to higher population of people of color, low-income individuals, or those with linguistic isolation. CT=Census Tract; BG=Block Group

Source: US Census American Community Survey 2021 5-year Estimates; Tables B02001, B03002 C17002, C16002, B15002, and B01001 (US Census Bureau, 2023)

## 4.1 Low Income Populations

Virginia has an average low-income population of 23.6%. Chesterfield and Henrico Counties have a low-income population of 18.1% and 21.9%, respectively. Within the study area, CBG2 and CBG3 have low-income populations exceeding the 30% threshold for a low-income community set by the VEJA. Two of four CBGs analyzed appear to meet the VEJA definition for a low-income community.

No USHUD low-income housing units or mobile home parks were identified in the study area.

## 4.2 Populations of Color

Virginia has an average total population of color of 39.4%. Predominate populations of color include Black/African American (19%), Hispanic (10%), and Asian (7%). People identifying as "two or more races" make up 4% of the total population. Native Americans, Native Hawaiian and Pacific Islanders, and those who identify as "some other race" make up less than 1% each of the state's population.

Within the study area, three of four CBGs appear to meet the definition for a community of color according to the VEJA (CBG2, CBG3, and CBG4). The CBG which contains the proposed CERC facility (CBG2) exceeds the state average Hispanic population. African American and Hispanic populations were also identified in two additional CBGs (CBG3 and CBG4). Appendix A provides the total people of color percentages and individual racial minority group percentages for each CBG within the study area.

This analysis indicates the presence of limited English-speaking populations as a measure of linguistic isolation.<sup>8</sup> Within the study area, one of four CBGs (CBG3) has a limited English-speaking population exceeding that of the Commonwealth (Figure 2).

## 4.3 Populations Under Age 5 and Over Age 64

Virginia's average population under 5 is 6%, the same as both Chesterfield and Henrico County averages. Two of the four CBGs within the study area have under 5 populations exceeding that of the Commonwealth; CBG2 is at 11.0% and CBG3 is at 21.9%.

Virginia's average population over 64 is 15.5%, consistent with Chesterfield (15%) and Henrico County (15.5%). One of four CBGs within the study area exceeds the Commonwealth average population over 64; CBG1 is at 24.6%.

## **4.4 Educational Attainment**

Populations within the study area with less than a high school education is 11% as compared to the Virginia and Chesterfield and Henrico County populations at 10.7% ,7.9% and 8.5% respectively. Two of the four CBGs within the study area have populations with less than a high school education that exceed that of the Commonwealth (CBG 2 and CBG 3).

## 4.5 Native American Tribes

There are no designated tribal lands within the study area, however, this analysis also seeks to identify federally recognized tribes with ancestral connection to the land and water within the study area. The USHUD Tribal Directory Assessment Tool (TDAT) identifies the following tribes as having self-identified an interest in one or more of the counties that intersect the study area: Chesterfield and Henrico.

Virginia recognizes 11 tribes, seven of which are also federally recognized. 2000 Of those, Catawba Indian Nation, Delaware Nation of Oklahoma, Pamunkey Indian Tribe, and Chickahominy Indian Tribe have interest in Chesterfield and Henrico Counties. The Chickahominy Indian Tribe, with a modern location in Providence Forge, is the closest tribe to the study area.

<sup>&</sup>lt;sup>8</sup> Note that US Census data on limited English-speaking populations is presented as household-level data. To convert these data to individuals, a standard average household size for Virginia was used. The average persons per household in Virginia between 2017 and 2021 was 2.57 (<u>US Census, 2023</u>).

# 5. Public Participation and Outreach

Dominion Energy is committed to providing reliable, affordable, clean energy in accordance with their values of safety, ethics, excellence, embrace change and teamwork. This includes listening to and learning from the communities they serve and ensuring communities have a meaningful voice in the planning and development process.

Dominion Energy has a long history of investment in Chesterfield County and support for the local community is woven into our everyday business operations. Employees at the existing Chesterfield Power Station play an active role in the community by dedicating time and resources to local schools and community organizations. Since 2022, station employees have donated over 100 hours of their time to mentoring local students and supporting local food banks and school supply drives. Station management and other staff regularly engage with local organizations, like Henricus Historical Park, to maintain good relationships and inform them of station activities. Beyond the scope of public outreach for any one project, like CERC, the Company is committed to being a positive catalyst in the communities where we live and work.

Leading up to and continuing through regulatory processes (i.e., permitting) Dominion has and will continue to engage with a broad range of stakeholders who have a variety of interests related to the project and its potential effects. As the project continues to advance, the Company is committed to engagement through permitting activities and construction-related communications to ensure community expectations are understood, and that potential impacts are limited to the greatest extent practicable. Furthermore, proactive efforts to ensure historically disadvantaged groups like Native American Tribes and environmental justice communities have access to information and opportunity to provide feedback have begun and will continue.

To introduce the CERC project, outreach to local and state elected officials, community leaders, civic associations, local churches, chambers of commerce, local recreational facilities, and Native American Tribes began in June 2023 and will be ongoing throughout the different phases of the Project.

On June 6, 2023, the Company mailed a community letter introducing the project to all addresses within a one-mile radius of the project site plus residents living in the two closest neighborhoods, which are primarily outside of the 1-mile radius with small areas of overlap. The initial letter was followed by a postcard invitation to the open house.<sup>9</sup> The Company also published advertisements about the Project in the Richmond Times-Dispatch. The Company held an initial open house hosted at Bellwood Elementary School on June 27, 2023, from 4:30 to 7:00 pm to provide community members an opportunity to learn more about the project and ask questions of expert staff also in attendance. Approximately 85 people, including members of the media, attended the June 27 open house.

<sup>10</sup>To promote an inclusive public participation process, Project materials have been translated into the Spanish language and posted on Dominion's webpage or included in Company announcements and neighborhood notifications. The Korean American Association, based in Chesterfield, was also provided with copies of the project fact sheet translated into the Korean language.

Dominion is planning additional community roundtable discussions and distribution of project information by hand in certain neighborhoods, including those which may be EJ Communities, near the facility or otherwise identified in the future by the air permitting process as being potentially affected by the Project.

Dedicated Tribal Relations staff at Dominion are conducting tribal outreach as well. Dominion has provided project information to representatives from the Catawba Indian Nation, Delaware Nation of Oklahoma, Chickahominy Indian Tribe, and Pamunkey Indian Tribal engagement will continue as additional project details become available.

More information on Dominion's public participation and outreach activities for the Project will be provided as it occurs in the coming months.

<sup>9</sup> Dominion, 2023b

<sup>&</sup>lt;sup>11</sup> Note this is represented by a crosshatch in the EJ Map.

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# 7. Acronyms

hð	Microgram
ACS	American Community Survey
BG	Block group
CAA	Clean Air Act
CBG	US Census Block Group
CERC	Chesterfield Energy Reliability Center
СТ	Combustion turbines
CUP	Conditional Use Permit
ECHO	Enforcement and Compliance History Online
EJ	Environmental Justice
EO	Executive Order
EPA	US Environmental Protection Agency
IRP	Integrated Resource Plan
km	Kilometer
NAAQS	National Ambient Air Quality Standards
NSR	New Source Review
ppb	Parts per billion
ppm	Parts per million
PSD	Prevention of significant deterioration
SCC	State Corporation Commission
SCCT	Simple-cycle combustion turbines
TBD	To Be Determined
TDAT	Tribal Directory Assessment Tool
TRI	Toxic Release inventory
USHUD	US Department of Housing and Urban Development
VDEQ	Virginia Department of Environmental Quality
VEJA	Virginia Environmental Justice Act

# Appendix A Expanded EJ Data Table

Map ID	Location	Total Populatio n	w	'hite	Total P Co	eople of blor		or African Ierican	Ind	rican lian skan tive	Asian	Alone	Nat Hawaii Other Islar	an and Pacific	Some Race A		Two o Rad		Hispar Lati		Non-Hi White		Low-In Popul		Limited E Speak	inglish	Less tha Scho Educa	l	Under 5	Years	Over 64	Years
			%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#			%	#	%	#	%	#
	Virginia	8,582,479	64.9%	5,574,307	39.4%	3,381,720	19.0%	1,631,941	0.3%	24,007	6.7%	578,210	0.1%	5,313	3.1%	265,361	5.9%	503,340	9.8%	840,248	60.6%	5,200,759	23.6%	1,966,819	2.7%	213,924	10.7%	612,820	5.8%	501,494	15.5%	1,328,600
	Chesterfield County	359,798	63.7%	229,291	40.0%	143,842	23.4%	84,080	0.3%	1,008	3.4%	12,117	0.1%	298	4.4%	16,010	4.7%	16,994	9.5%	34,175	60.0%	215,956	18.1%	64,341	2.3%	7,417	7.9%	18,045	6.0%	21,413	15.0%	53,961
CBG2	CT 1004.03/ BG 3	875	68.3%	598	38.6%	338	0.0%	0	0.0%	0	0.0%	0	0.0%	0	14.6%	128	17.0%	149	21.6%	189	61.4%	537	73.5%	643	0.0%	0	20.7%	277	11.0%	96	5.6%	49
CBG3	CT 1004.07/ BG 1	691	69.9%	483	79.5%	549	21.7%	150	0.0%	0	0.0%	0	1.0%	7	2.3%	16	5.1%	35	51.7%	357	20.5%	142	70.2%	485	26.0%	113	20.5%	67	21.9%	151	5.9%	41
CBG4	CT 1004.03/ BG 4	818	50.5%	413	49.5%	405	45.0%	368	1.8%	15	0.0%	0	0.0%	0	0.0%	0	2.7%	22	1.8%	15	50.5%	413	15.2%	124	0.0%	0	5.2%	34	0.0%	0	6.7%	55
CBG5	CT 1004.09/ BG3	226	100%	226	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	100%	226	33.2%	75	0.0%	0	2.8%	33	0.0%	0	22.1%	50
	Henrico County	331,924	53.6%	178,020	48.5%	161,097	29.6%	98,228	0.2%	579	9.2%	30,654	0.0%	104	2.8%	9,136	4.6%	15,203	6.0%	19,839	51.5%	170,827	21.9%	72,036	2.9%	9,396	8.5%	19,203	6.0%	19,872	15.5%	51,523
CBG1	CT 2016.02 / BG 4	1,075	85.4%	918	18.8%	202	4.3%	46	0.0%	0	1.1%	12	0.0%	0	0.0%	0	9.2%	99	6.0%	64	81.2%	873	6.8%	73	0.0%	0	0.0%	0	2.0%	21	24.6%	264
CBG6	CT 2016.02/ BG 2	1,571	66.3%	1,041	37.4%	588	31.3%	492	0.0%	0	0.0%	0	0.0%	0	0.0%	0	2.4%	38	3.7%	58	62.6%	983	20.1%	314	0.0%	0	8.0%	90	10.8%	170	28.1 %	442

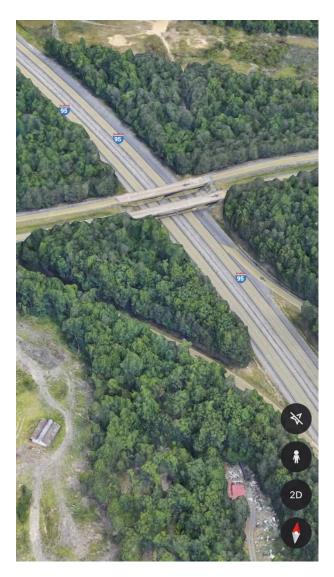
Table Note: CT=Census Tract; BG=Block Group; Table includes all six CBGs that touch the one-mile buffer, however only 1-4 are featured in the main report.

Source: US Census American Community Survey 2021 5-year Estimates; Tables B02001, B03002 C17002, C16002, B15002, and B01001 (US Census Bureau, 2023)

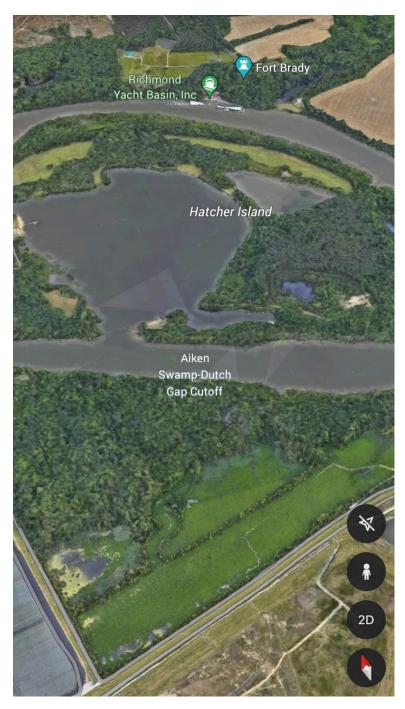
Legend	<u>l</u>	
Color	EJ Characteristic (VEJA)	Number of CBGs
	Community of Color	2
	Low-Income	1
	Community of Color, Low-Income, and Limited English Speaking <sup>11</sup>	1
	None	2

<sup>&</sup>lt;sup>11</sup> Note this is represented by a crosshatch in the EJ Map.

# Appendix B: Aerial View of CBG 5 within the 1-mile radius



# Appendix C: Aerial View of CBG 6 within the 1-mile radius



## Appendix D: Community Open House Postcards (English and Spanish)

You're invited to a community open house to learn more about Dominion Energy's proposed Chesterfield Energy Reliability Center, which will be located adjacent to our existing Chesterfield Power Station at the James River Industrial Center. Our team will share important details about the project, including:

- Project Overview
- Regulatory and Permitting Process
- Community Benefits

In addition, subject matter experts will be available to answer your questions and listen to any feedback.

We hope to see you there!

#### **PROJECT BENEFITS**



state tax revenues Supports renewable energy resources

#### Tuesday, June 27, 2023 5:00 p.m.–7:30 p.m.

Bellwood Elementary School – Cafeteria 9536 Dawnshire Rd, North Chesterfield, VA 23237



For more information about Chesterfield Energy Reliability Center, scan the QR code or visit **DominionEnergy.com/CERC**. If you have any questions, please contact us at **CERC@DominionEnergy.com** or **833-704-0041** (toll-free).



# **Appendix E: Community Letter**

Dear

Dominion Energy is assessing the development of a natural gas electric generation project at the James River Industrial Park, northwest of the company's Chesterfield Power Station. The industrial park location was selected because it is designated as a site for economic development and for its close proximity to needed electric transmission lines and county water and sewer utilities.

Dominion Energy is committed to a clean energy future that includes the use of renewable energy resources and fulfilling our obligation to reliably serve our customers. The proposed generation project supports this commitment by enabling the development of more renewable energy resources, while providing the vital energy our customers need during periods of high energy demand.

According to a study by Chmura Economics & Analytics, the two-year development and construction window for the project could create an annual average of \$5.4 million in total direct, indirect and induced economic impact for Chesterfield County, supporting an average of 25 jobs. During peak construction, approximately 275 workers would be onsite. In 2024, the first year of operation, the facility could contribute an estimated \$2.1 million in annual local tax revenue.

The Dominion Energy project team is committed to keeping neighbors of the James River Industrial Park and the community informed as we complete the evaluation of the proposed site. In the coming weeks, we will host a community meeting to share more information about the project and answer your questions.

We strive to be a good neighbor and a positive contributor to the economic, cultural and civic life of Chesterfield County. Additional information about these activities is enclosed.

If you have any questions, please contact us by calling 1-833-704-0041 or sending an email to <u>NaturalGasPeaking@DominionEnergy.com</u>. Information regarding this project also may be found on our website at www.DominionEnergy.com/PeakingStation.

Sincerely,

Mark D. Mitchell Vice President – Generation Construction

aecom.com

