



**AIR AND RADIATION ADMINISTRATION
DRAFT PART 70 OPERATING PERMIT**

DOCKET # 24-003-0208

COMPANY: Thurgood Marshall BWI Airport

LOCATION: 761 Elm Road
Baltimore, Maryland 21240

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**MARYLAND DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION
AIR QUALITY PERMITS PROGRAM**

TITLE V – PART 70 OPERATING PERMIT PROGRAM OVERVIEW

Title V of the Clean Air Act (amended) requires each state to implement a federally enforceable operating permit program for major sources of air pollution. This program, the Part 70 Permit Program, also known as the Title V Permit Program, is designed to provide a comprehensive administrative document (a Part 70 Operating Permit) that identifies all air emissions sources at a given facility and the federal air quality regulations applicable to those sources. The permit establishes the methodology by which the owner/operator will demonstrate compliance, and includes testing, monitoring, record-keeping, and reporting requirements for each emissions source.

A Part 70 Operating Permit does not authorize new construction, and does not add any new emissions limitations, standards, or work practices on an affected facility. There may, however, be additional testing, record keeping, monitoring, and reporting requirements. A Part 70 Operating Permit is a five-year renewable permit. A responsible official for each facility subject to a Part 70 Operating Permit is required to annually certify compliance with each applicable requirement for that facility.

When an application for a Part 70 Operating Permit is received, the Department will complete a technical review of the application and will prepare a draft Part 70 Operating Permit and Fact Sheet. The Fact Sheet will explain the basis and technical analysis used by the Department to develop the federally enforceable permit conditions, including the required testing, monitoring, record keeping, and reporting provisions for each emissions unit at the permitted facility. The Fact Sheet will also include a description of the facility operations and the current compliance status with applicable requirements. If there are any discrepancies between the Part 70 Operating Permit application and the draft permit, the Fact Sheet will contain a discussion of the inconsistencies and the final resolution.

Public Participation Process

The Part 70 Operating Permit Program provides the public, adjacent states, and EPA the opportunity to review and submit comments on draft permits. The public may also request a public hearing on the draft permit.

The purpose of a public hearing is to give interested parties the opportunity to submit comments for the record which are germane to the draft federally enforceable permit conditions. Comments made at the hearing, or in writing to the Department during the comment period, should address errors and deficiencies in the permit such as unidentified emissions units, incorrect or deficient regulation citation, deficient record keeping, monitoring, reporting or testing requirements and unresolved compliance issues. After the public comment period has closed, the Department will review the formal testimony as part of the final review and prepare a Response to Comments document which will be sent to the EPA along with the draft Part 70 Operating Permit and Fact Sheet.

Testimony on state-only requirements will be kept on file at the Department as part of the formal record, however, state-only rules and regulations are not federally enforceable, and therefore are not within the scope of the EPA review. The Department will keep a record of the identity of the commenters, their statements, a summary of the issues raised during the public comment period, and the Response to Comments document for at least five years.

Citizen Petition to EPA to Object to Permit Issuance

Interested parties may petition the EPA to object to the Part 70 Permit if the EPA has not already objected, within 60 days after the 45-day EPA review period has ended. The petition period will be posted on the EPA website. The EPA will only consider objections to the federally enforceable provisions of the draft permit which were raised with reasonable specificity during the public comment period, unless: (1) the petitioner demonstrates that it was impractical to raise the objections within the public comment period, or (2) the grounds for the objection arose after the comment period. If the EPA agrees with the petition, the Department will reopen, revise, or revoke the permit as determined.

Applicant Objection to Permit Issuance and Recourse

If the applicant objects to the federally enforceable permit conditions contained in the issued Part 70 Operating Permit, the applicant has 15 days from receipt of the issued permit to request a contested case hearing. More information on that can be found in 40 CFR, Part 70, and COMAR 26.11.03.11.

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**NOTICE OF INTENT TO ISSUE PART 70 OPERATING PERMIT, OPPORTUNITY TO SUBMIT
WRITTEN COMMENTS OR TO REQUEST A PUBLIC HEARING**

The Department of the Environment, Air and Radiation Administration (ARA) has completed its review of the application for a renewal Part 70 Operating Permit submitted by the BWI Thurgood Marshall Airport located in Anne Arundel County, MD. The facility consists of three natural gas/No. 2 fuel oil fired boilers, eleven gas fired boilers, one no.2 fuel fired boiler, standby diesel-fired emergency generators, twelve diesel fired emergency boilers, and one 8000 gallon motor gasoline storage tank. The applicant is represented by:

Mr. Paul L. Shank, P.E., CM - Chief Engineer
Division of Planning and Engineering
Maryland Aviation Administration (MDOT-MAA)
BWI Thurgood Marshall Airport
P.O. Box 8766
Baltimore, MD 21240-0766

The Department has prepared a draft Part 70 Operating Permit for review and is now ready to receive public comment. A docket containing the application, draft permit, and supporting documentation is available for review on the Department's website, under the Air Quality Permitting Page's Title V link under "Draft Title V Permits" and may be viewed here:

<https://tinyurl.com/DraftTitleV>

Interested persons may submit written comments or request a public hearing on the draft permit. Written comments must be received by the Department no later than 30 days from the date of this notice. Requests for a public hearing must be submitted in writing and must also be received by the Department no later than 30 days from the date of this notice.

Comments and requests for a public hearing will be accepted by the Department if they raise issues of law or material fact regarding applicable requirements of Title V of the Clean Air Act, and/or regulations implementing the Title V Program in Maryland found in COMAR.

A Request for public hearing shall include the following:

- 1) The name, mailing address, and telephone number of the person making the request;
- 2) The names and addresses of any other persons for whom the person making the request if representing; and
- 3) The reason why a hearing is requested, including the air quality concern that forms the basis for the request and how this concern relates to the person making the request.

All written comments and requests for a public hearing should be directed to the attention of Ms. Shannon Heafey via email at Shannon.heafey@maryland.gov or by post at Air Quality Permits Program, Air and Radiation Administration, 1800 Washington Boulevard Suite 720, Baltimore, Maryland 21230-1720. Further information may be obtained by calling Ms. Shannon Heafey at (410) 537-4433.

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 MARYLAND AVIATION ADMINISTRATION
 BWI THURGOOD MARSHALL AIRPORT
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BACKGROUND

Baltimore Washington International (BWI) Thurgood Marshall Airport is a medium-sized commercial airport, ranked 22nd in the United States based on passenger volume. The Standard Industrial Classification (SIC) code for the facility is 4581 – Airports, Flying Fields and Airport Terminal Services. Occupying 3,596 acres in northern Anne Arundel County, Maryland, the facility is owned by the Maryland Department of Transportation (MDOT) and operated by the Maryland Aviation Administration (MAA). Air carriers using the facility include 36 commercial, commuter, charter, and cargo airlines engaged in an average of 608 flight operations daily. An average exceeding 51,000 passengers per day are served by a single terminal building with 4 domestic and 1 international concourses, comprising approximately 2 million square feet. Inter-modal transportation services at the site include multiple parking facilities with associated shuttle buses, an AMTRAK station, and Light-Rail stops. MAA, tenant, and contractor employees working at BWI exceed 10,000. Significant stationary sources of air pollution at BWI include fossil fuel-fired boilers at the Central Utility Plant, smaller boilers located in the Terminal Building, standby electric generators, fuel storage, and training fires.

The following table summarizes the actual emissions from BWI Thurgood Marshall Airport based on its Annual Emission Certification Reports:

Table 1: Actual Emissions

Year	NO _x (TPY)	SO _x (TPY)	PM ₁₀ /PM _{2.5} (TPY)	CO (TPY)	VOC (TPY)	Total HAP (TPY)
2022	21.35	0.086	1.31/1.22	9.80	4.21	0.01
2021	20.846	0.1481	3.09/3.04	12.48	9.72	0.11
2020	21.655	0.0367	0.3191/0.2152	8.167	1.615	0.0063
2019	20.398	0.157	3.36/3.30	12.68	10.85	0.008
2018	20.98	0.0922	1.678/1.609	10.16	5.73	0.0072

The major source threshold for triggering Title V permitting requirements in Anne Arundel County is 25 tons per year for VOC, 25 tons for NO_x, and 100 tons per year for any other criteria pollutants and 10 tons for a single HAP or 25 tons per year for total HAPS. Since the potential NO_x emission from the facility are greater than the major source threshold, BWI Thurgood Marshall Airport is required to obtain a Title V – Part 70 Operating Permit under COMAR 26.11.03.01.

The Department, on January 31, 2023, received the BWI Thurgood Marshall Airport's Part 70-permit renewal application, which was submitted by Maryland Aviation Administration. An administrative completeness review was conducted, and the application was deemed complete. A completeness determination letter was sent to Maryland Aviation Administration on February 22, 2023, granting BWI Thurgood Marshall Airport an application shield.

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CHANGES AND MODIFICATIONS TO THE PART 70 OPERATING PERMIT

The following changes and/or modifications have been incorporated into the renewal Title V – Part 70 Operating Permit for BWI Thurgood Marshall Airport:

Additions to the facility

On May 16, 2019, BWI Thurgood Marshall Airport was issued a permit to construct two (2) natural gas fired boilers each rated at 3 MMBtu/hr. (EU-33 and EU-34) **[003-0208-5-0880 and 0881]**

MACT and NSPS

BWI Thurgood Marshall Airport is a minor source of HAPs and is subject to the following area source MACT standards (40 CFR Part 63):

1. Subpart JJJJJJ—National Emission Standards for Hazardous Air Pollutants: Industrial, Commercial, and Institutional Boilers Area Sources.
2. Subpart ZZZZ—National Emission Standards for Hazardous Air Pollutants: Reciprocating Internal Combustion Engines.
3. Subpart CCCCCC—National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities

BWI Thurgood Marshall Airport is subject to the following New Source Performance Standards (NSPS) (40 CFR Part 60),

1. Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
2. Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

BWI Thurgood Marshall Airport is also subject to the NO_x Reasonably Available Control Technology (RACT) requirements in COMAR 26.11.09.08.

COMPLIANCE ASSURANCE MONITORING

BWI Thurgood Marshall Airport is **not** subject to the Compliance Assurance Monitoring (CAM) Rule 40 CFR Subpart 64. CAM is intended to provide a reasonable assurance of compliance with applicable requirements under the Clean Air Act for large emission units that rely on air pollution control (APC) equipment to achieve compliance. The CAM approach establishes monitoring for the purpose of: (1) documenting continued operation of the control measures within ranges of specified indicators of performance (such as emissions, control device parameters, and process parameters) that are designed to provide a reasonable assurance of compliance with applicable requirements; (2) indicating any excursions from these ranges; and (3) responding to the data so that the cause or causes of the excursions are corrected. In order for a unit to be subject to CAM, the unit must be located at a major source, be subject to an emission limitation or standard; use a control device to achieve compliance; have post-control emissions of at least 100% of the major source amount (for initial CAM submittals); and must not otherwise be exempt from CAM. Applicability determinations are made on a pollutant-by-pollutant basis for each emission unit.

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GREENHOUSE GAS (GHG) EMISSIONS

BWI Thurgood Marshall Airport emits the following greenhouse gases (GHGs): carbon dioxide, methane, and nitrous oxide; the primary emissions are CO₂. These GHGs originate from various processes (i.e., boilers and internal combustion engines) contained within the facility premises applicable to BWI Thurgood Marshall Airport.

The following table summarizes the actual emissions from BWI Thurgood Marshall Airport based on its Annual Emission Certification Reports:

Table 2: Greenhouse Gases Emissions Summary

GHG	2020 tpy CO ₂ e	2021 tpy CO ₂ e	2022 tpy CO ₂ e
Total GHG CO ₂ eq	8,745	10,483	9,880

EMISSION UNIT IDENTIFICATION

BWI Thurgood Marshall Airport has identified the following emission units as being subject to Title V permitting requirements and having applicable requirements.

Table 3: Emission Unit Identification

Emissions Unit Number	MDE Registration Number	Emissions Unit Name and Description	Date of Installation
EU-1	003-0208-5-0681	Boiler #1: One (1) Indeck natural gas/No. 2 fuel oil fired boiler rated at 55 million Btu per hour heat input producing HTHW located at the Central Utility Plant.	2003; Modified 2009
EU-2	003-0208-5-0682	Boiler #2: One (1) Indeck natural gas/No. 2 fuel oil fired boiler rated at 55 million Btu per hour heat input producing HTHW located at the Central Utility Plant.	2003; Modified 2009
EU-3	003-0208-5-0683	Boiler #3: One (1) Indeck natural gas/No. 2 fuel oil fired boiler rated at 25 million Btu per hour heat input producing HTHW located at the Central Utility Plant.	1995; Modified 2009
EU-4	003-0208-9-0916	One (1) Spectrum 500DS4 505 kW standby diesel fired emergency generator used for electricity generation located at Pier D-Front of Terminal Building.	2003
EU-5	003-0208-9-0910	One (1) Caterpillar SR4 750 kW standby diesel-fired emergency generator used for electricity generation located at Daily Parking Garage.	2003

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Emissions Unit Number	MDE Registration Number	Emissions Unit Name and Description	Date of Installation
EU-6	003-0208-9-0914	One (1) Caterpillar 1207 bhp (900 kW) standby diesel fired emergency generator used for electricity generation located at Pier A.	2005
EU-7	003-0208-9-0894	Motor gasoline Storage tank (8,000-gal gas UST) located in Field Maintenance Building 116.	2005
EU-8	NA	BWI Training Fires: Use of Jet A fuel to simulate fires from burning aircraft during an emergency for training of airport fire and rescue staff.	1988
EU-10	003-0208-9-0912	One (1) Caterpillar SR4B 600 kW standby diesel fired emergency generator used for electricity generation located at International Terminal Roof.	1997
EU-11	003-0208-9-0913	One (1) Kohler 644 bhp (410 kW) standby diesel fired emergency generator used for electricity generation located at MAC Building.	2006
EU-12	003-0208-9-0909	One (1) Caterpillar SR4 600 kW standby diesel-fired emergency generator used for electricity generation located at Airfield Lighting Vault.	1996
EU-13	003-0208-9-0911	One (1) Onan 600 kW standby diesel fired emergency generator used for electricity generation located at Hourly Parking Garage.	1996
EU-14	003-0208-9-0915	One (1) Generac 671 bhp (500 kW) standby diesel-fired emergency generator used for electricity generation located at Pier A Triturator.	2005
EU-15	003-0208-9-0948	One (1) Katolight 1495 bhp (900kW) standby diesel-fired emergency generator used for electricity generation located at International Terminal LL.	2008
EU-16	003-0208-9-1030	One (1) Detroit Diesel 2000 kW standby diesel-fired emergency generator used for electricity generation located at CDC.	2011
EU-17	003-0208-9-1053	One (1) Baldor 2000 kW standby diesel-fired emergency generator used for electricity generation located at Central Utility Plant.	2012
EU-18	003-0208-9-1070	One (1) MTU Onsite Energy 900-XC6DT2 900kW (1354 hp) standby diesel-fired emergency generator used for electricity generation located at aircraft gate C-2.	2013

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Emissions Unit Number	MDE Registration Number	Emissions Unit Name and Description	Date of Installation
EU-19 and EU-20	003-0208-5-0769 and 5-0770	Two (2) Hydrotherm KN-10 natural gas-fired boilers, each rated at 1.99 million Btu per hour heat input used for production of HTHW located at Concourse E.	2013
EU-23, EU-24, EU-25, and EU-26	003-0208-5-0771 through 5-0774	Four (4) Hydrotherm KN-30 natural gas-fired boilers, each rated at 3.0 million Btu per hour heat input use for production of HTHW located at Concourse B.	2013
EU-27	003-0208-5-0794	One (1) Hydrotherm KN-10 natural gas-fired boiler rated at 1.0 million Btu per hour heat input used for production of HTHW located at ARFF Building	2014
EU-28	003-0208-5-0808	One (1) Cleaver Brooks CFH-700-50-15ST natural gas-fired boiler rated at 1.969 million Btu per hour heat input used for production of HTHW located at LSC Building	2015
EU-29	003-0208-9-1109	One (1) MTU Onsite Energy 750kW standby diesel-fired emergency generator used for electricity generation located at OMU Building	2015
EU-30	003-0208-5-0831	One (1) Trane natural gas-fired heater rated at 1.65 million Btu per hour heat input used for heat located ARFF Building.	October 2006
EU-31	003-0208-4-0886	One (1) Smith No. 2 fuel oil boiler rated at 3.22 MMBtu/hr. used for heat and process steam located in Building 123.	2014
EU-32	003-0208-9-1140	Cummins Power Model DQFD {or Equivalent} Standby Emergency Generator rated @1000 kW (1341-bhp) or less, {Trailer mounted unit for use throughout facility where/when needed	2017
EU-33 and EU-34	003-0208-5-0880 and 5-0881	Two (2) KN-30 natural gas fired boilers. Each rated at 3.00 million Btu per hour heat input used for heat.	2020

AN OVERVIEW OF THE PART 70 PERMIT

The Fact Sheet is an informational document. If there are any discrepancies between the Fact Sheet and the Part 70 permit, the Part 70 permit is the enforceable document.

Section I of the Part 70 Permit contains a brief description of the facility and an inventory list of the emissions units for which applicable requirements are identified in Section IV of the permit.

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Section II of the Part 70 Permit contains the general requirements that relate to administrative permit actions. This section includes the procedures for renewing, amending, reopening, and transferring permits, the relationship to permits to construct and approvals, and the general duty to provide information and to comply with all applicable requirements.

Section III of the Part 70 Permit contains the general requirements for testing, record keeping and reporting; and requirements that affect the facility as a whole, such as open burning, air pollution episodes, particulate matter from construction and demolition activities, asbestos provisions, ozone depleting substance provisions, general conformity, and acid rain permit. This section includes the requirement to report excess emissions and deviations, to submit an annual emissions certification report and an annual compliance certification report, and results of sampling and testing.

Section IV of the Part 70 Permit identifies the emissions standards, emissions limitations, operational limitations, and work practices applicable to each emissions unit located at the facility. For each standard, limitation, and work practice, the permit identifies the basis upon which the Permittee will demonstrate compliance. The basis will include testing, monitoring, record keeping, and reporting requirements. The demonstration may include one or more of these methods.

Section V of the Part 70 Permit contains a list of insignificant activities. These activities emit very small quantities of regulated air pollutants and do not require a permit to construct or registration with the Department. For insignificant activities that are subject to a requirement under the Clean Air Act, the requirement is listed under the activity.

Section VI of the Part 70 Permit contains State-only enforceable requirements. Section VI identifies requirements that are not based on the Clean Air Act, but solely on Maryland air pollution regulations. These requirements generally relate to the prevention of nuisances and implementation of Maryland's Air Toxics Program.

REGULATORY REVIEW/TECHNICAL REVIEW/COMPLIANCE METHODOLOGY

Emission Units: EU-1 thru EU-3 – Boilers
Boilers > 10 million Btu per hour

EU-1 – Boiler #1: One (1) Indeck natural gas/No. 2 fuel oil fired boiler rated at 55 million Btu per hour heat input. **[003-0208-5-0681]**

EU-2 - Boiler #2: One (1) Indeck natural gas/No. 2 fuel oil fired boiler rated at 55 million Btu per hour heat input. **[003-0208-5-0682]**

EU-3 - Boiler #3: One (1) Indeck natural gas/No. 2 fuel oil fired boiler rated at 25 million Btu per hour heat input. **[003-0208-5-0683]**

These boilers are located in the Central Utility Plant.

These boilers are subject to the requirements of 40 CFR 60, Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. Boilers were installed in 1995 and 2003. The applicability requirement states “...the

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affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989, and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h).” [Reference: §60.40c]

These boilers are subject to the requirements of 40 CFR 63, Subpart JJJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources.

Compliance Status

February 8, 2018, stack tests were performed on the boilers for NO_x in addition to opacity measurements. The Department received the test report on March 28, 2018. Boilers were fired at maximum rate attainable on the day of the tests.

NO_x results were as follows:

	Natural Gas (lb./MMBtu)	Firing Rate (%)	Fuel Oil (lb./MMBtu)	Firing Rate (%)
Boiler #1	0.13	91	0.12	89
Boiler #2	0.12	90	0.13	89
Boiler #3	0.13	117	0.16	116

No Visible Emissions (VE) were observed during the Method 9 VE observations.

During the last compliance inspection dated 10/27/2022, these boilers were noted as confirmed. Boilers #1 and #2 were on standby and Boiler #3 was operating.

Applicable Standards and Limitations:

A. Control of Visible Emissions

COMAR 26.11.09.05A – Fuel Burning Equipment

“(2) Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity.”

(3) Exceptions. “Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if:

- (a) The visible emissions are not greater than 40 percent opacity; and
- (b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period.”

Compliance Demonstration

The Permittee shall:

- (1) Properly operate and maintain the boilers in a manner to prevent visible emissions; and

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- (2) Verify no visible emissions when burning No. 2 fuel oil. The Permittee shall perform a visual observation for a 6-minute period once for each 168 hours that the boiler burns oil or at a minimum of once per year.

The Permittee shall perform the following if emissions are visible:

- (1) Inspect combustion control system and boiler operations,
- (2) Perform all necessary adjustments and/or repairs to the boiler within 48 hours, so that visible emissions are eliminated;
- (3) Document in writing the results of the inspections, adjustments and/or repairs to the boiler; and
- (4) After 48 hours, if the required adjustments and/or repairs have not eliminated the visible emissions, perform Method 9 observations once daily for 18 minutes until corrective actions have eliminated the visible emissions.

The Permittee shall:

- (1) Maintain an operation manual and prevention maintenance plan on site;
- (2) Maintain a record of the maintenance performed that relates to combustion performance;
- (3) Maintain a log of visible emissions observations performed and make it available to the Department's representative upon request;
- (4) Maintain a record of the hours that No. 2 fuel oil is burned.

[Reference: COMAR 26.11.03.06C]

The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations".

Rationale for Periodic Monitoring - Boilers that burn natural gas fuel or No. 2 Fuel Oil with a rated heat input capacity of more than 10 MM Btu/hr. and less than 250 MM Btu/hr. rarely have visible emissions if properly operated and maintained. The Permittee is required to maintain on site an operation manual, a preventative maintenance plan, and records of maintenance performed that relate to combustion performance.

If visible emissions occur, it will happen when burning No. 2 fuel oil. The Permittee is required to perform a visual observation of the exhaust gases from the boiler stack for a 6-minute period, once each 168 hours that fuel oil is burned. In mild winters, the hours of interrupted gas service may be less than 168 hours. At a minimum, one observation for visible emissions is required each year. The Permittee is required to maintain a record of the results of the observations and the number of hours that No. 2 fuel oil is burned.

B. Control of Particulate Matter Emissions

Note: The PM requirements in this table only apply to **EU-1** and **EU-2**.

40 CFR §60.43c – Standard for particulate matter (PM)

“(c) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, wood, or oil and has a heat input capacity of 8.7 MW (30 MMBtu/hr.) or greater shall cause to be discharged into the atmosphere from that

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affected facility any gases that exhibit greater than **20 percent opacity (6-minute average)**, except for one 6-minute period per hour of not more than 27 percent opacity.”
“(d) The PM and opacity standards under this section apply at all times, except during periods of startup, shutdown, or malfunction.”

Please note: Compliance with the “No Visible Emission” requirements of COMAR 26.11.09.05A(2) will be used to show compliance with 40 CFR §60.43c(c) and (d).

40 CFR §60.43c(e) – Standard for particulate matter (PM)

“(1) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts coal, **oil**, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels and has a heat input capacity of 8.7 MW (30 MMBtu/hr.) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 13 ng/J (0.030 lb./MMBtu) heat input, except as provided in paragraphs (e)(2), (e)(3), and (e)(4) of this section.”

“(4) An owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that contains no more than **0.50 weight percent sulfur** or a mixture of 0.50 weight percent sulfur oil with other fuels not subject to a PM standard under §60.43c and not using a post-combustion technology (except a wet scrubber) to reduce PM or SO₂ emissions is not subject to the PM limit in this section.”

Compliance Demonstration

40 CFR §60.45c(d) – Compliance and performance test methods and procedures for particulate matter.

“The owner or operator of an affected facility seeking to demonstrate compliance under §60.43c(e)(4) shall follow the applicable procedures under §60.48c(f).”

40 CFR §60.47c(c) – Emission monitoring for particulate matter.

“Affected facilities that burn only distillate oil that contains no more than 0.5 weight percent sulfur and/or liquid or gaseous fuels with potential sulfur dioxide emission rates of 26 ng/J (0.06 lb./MMBtu) heat input or less and that do not use a post-combustion technology to reduce SO₂ or PM emissions and that are subject to an opacity standard in §60.43c(c) are not required to operate a COMS if they follow the applicable procedures under §60.48c(f).”

The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period. **[Reference: 40 CFR §60.48c(j)]**

C. Control of Sulfur Oxides

COMAR 26.11.09.07A(2) - Sulfur Content Limitations for Fuel.

“A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV: (b) Distillate fuel oils, 0.3 percent.”

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40 CFR §60.42c - Standard for sulfur dioxide (SO₂)

“(d) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of 215 ng/J (0.50 lb/MMBtu) heat input; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The percent reduction requirements are not applicable to affected facilities under this paragraph.”

“(h) For affected facilities listed under paragraphs (h)(1), (2), (3), or (4) of this section, compliance with the emission limits or fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier, as described under §60.48c(f), as applicable.

(1) Distillate oil-fired affected facilities with heat input capacities between 2.9 and 29 MW (10 and 100 MMBtu/hr.)”

“(i) The SO₂ emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.”

Note: Compliance with the “Sulfur Content Limitations for Fuel” requirement of COMAR 26.11.09.07A(2) will be used to show compliance with 40 CFR §60.42c(d).

Compliance Demonstration

40 CFR §60.44c(h) - Compliance and performance test methods and procedures for sulfur dioxide.

“For affected facilities subject to §60.42c(h)(1), (2), or (3) where the owner or operator seeks to demonstrate compliance with the SO₂ standards based on fuel supplier certification, the performance test shall consist of the certification, the certification from the fuel supplier, as described under §60.48c(f), as applicable.”

40 CFR §60.46c(e) - Emission monitoring for sulfur dioxide.

“The monitoring requirements of paragraphs (a) and (d) of this section shall not apply to affected facilities subject to §60.42c(h) (1), (2), or (3) where the owner or operator of the affected facility seeks to demonstrate compliance with the SO₂ standards based on fuel supplier certification, as described under §60.48c(f), as applicable.”

The Permittee shall maintain records of fuel supplier’s certification. **[Reference: COMAR 26.11.03.06C]**

Fuel supplier certification shall include the following information:

(1) For distillate oil:

- (i) The name of the oil supplier;
- (ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in §60.41c; and
- (iii) The sulfur content of the oil.

[Reference: 40 CFR §60.48c(f)]

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The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period. **[Reference: 40 CFR §60.48c(j)]**

Rationale for Periodic Monitoring: The strategy for the compliance demonstration is based on the compliance demonstration for NSPS Subpart Dc boilers that burn fuel oil. The methodology for the compliance demonstration is based on the NSPS monitoring, record keeping, and reporting requirements for sulfur in fuel oil. See discussion of streamlining below.

Streamlining NSPS requirements with COMAR

These boilers are subject to following Federal New Source Performance Standards (NSPS) for Small Industrial-commercial-institutional Steam Generating Units with a heat input capacity less than 100 million Btu/hour but greater than 10 million Btu/hour for which construction began after June 9, 1989, 40 CFR 60, Subpart Dc:

- 40 CFR 60.43c which limits visible emissions to 20 percent opacity.
- 40 CFR 60.42c which limits sulfur content in the fuel oil to 0.5 wt %

Compliance with the “No Visible Emissions” requirement of COMAR 26.11.09.05A(2) will be used as a demonstration of compliance with this NSPS 20 percent opacity standard. The demonstration of compliance with COMAR 26.11.09.07A, which requires 0.3 % sulfur content by weight, as well as the NSPS limitation of 0.5 % will be based on the NSPS monitoring, record keeping, and reporting requirements for sulfur content in fuel oil.

D. Control of Nitrogen Oxides

COMAR 26.11.09.08B(5) - Operator Training.

- (a) For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.
- (b) The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department.”

COMAR 26.11.09.08E - Requirements for Fuel-Burning Equipment with a Rated Heat Input Capacity of 100 MMBtu Per Hour or Less. “A person who owns or operates fuel-burning equipment with a rated heat input capacity of 100 MMBtu per hour or less shall:

- (1) Submit to the Department an identification of each affected installation, the rated heat input capacity of each installation, and the type of fuel burned in each;
- (2) Perform a combustion analysis for each installation at least once each year and optimize combustion based on the analysis;
- (3) Maintain the results of the combustion analysis at the site for at least 2 years and make this data available to the Department and the EPA upon request;
- (4) Once every 3 years, require each operator of the installation to attend operator training programs on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and

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- (5) Prepare and maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request.”

Compliance Demonstration

The Permittee shall perform a stack test on the three (3) Indeck boilers, both on oil and natural gas, once during the term of this permit. The Permittee shall submit a test protocol to the Department for approval at least 30 days before the scheduled test date. The Permittee shall submit all test results and supporting data from the stack tests to the Department within 45 days after the stack tests are conducted. The Permittee shall maintain the results of the NO_x stack tests and the NO_x analyzer readings for at least 5 years and make them available to the Department upon request. The Permittee shall report the results of NO_x testing on these boilers along with supporting data from the stack test within 45 days of the completion of the stack test. **[Reference: COMAR 26.11.03.06C]**

The Permittee shall perform a combustion analysis for each installation at least once each calendar year and optimize combustion based on the analysis.

[Reference: COMAR 26.11.09.08E(2)]

The Permittee shall measure the NO_x content of the flue gases from each boiler for a 5-minute period for every 168 hours of operation on fuel oil. The Permittee shall use an analyzer that is properly calibrated and maintained in accordance with the vendor specification. The analyzer shall be the type approved by the Department **[Reference: COMAR 26.11.03.06C]**

The Permittee shall maintain a record of training program attendance for each operator at the site. **[Reference: COMAR 26.11.09.08E(5)].**

E. Operational Limitation:

In order to exempt the three (3) boilers (2- 55 MMBtu/hr. and 1-25 MMBtu/hr.) from the requirements of COMAR 26.11.17 – Nonattainment Provisions for Major New Sources and Modifications, and prevent the boilers from operating as a “Major Modification” with a “significant” net emissions increase of NO_x as defined under COMAR 26.11.17.01B, the Permittee shall limit the NO_x emissions from the three (3) boilers to less than 25 tons per year, for any 12-month consecutive period. **[Reference: PTC 003-0208-5-0681, 5-0682, & 5-0683 issued January 6, 2009]**

Compliance Demonstration

In order to demonstrate compliance with the emissions limitations requirement for exemption from New Source Review (NSR), the Permittee shall calculate and record the emissions from the three (3) boilers, for each previous calendar month and a total for the previous 12 consecutive calendar months. The calculations and records shall be updated monthly, within the first 15 days of each following month. **[Reference: PTC 003-0208-5-0681, 5-0682, & 5-0683 issued January 6, 2009]**

The Permittee shall submit records of the quantity and type of fuels burned with the annual emissions certification report. See permit condition 8 of Section III.

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Emission Units: EU-31 – Boiler
Boiler < 10 million Btu per hour

EU-31: One (1) Smith No. 2 fuel oil boiler rated at 3.22 million Btu per hour heat input used for heat and process steam located in Building 123. **[003-0208-4-0886]**.

This boiler is not subject to the requirements of 40 CFR 60, Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. The regulation only applies to boilers that are rated greater than 10 million Btu/hr. and less than 100 million Btu/hr.

This boiler is subject to the requirements of 40 CFR 63, Subpart JJJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources. See Table IV-2a: MACT in Title V Operating Permit.

Compliance Status

Note: The boiler is listed as confirmed during the 2022 Compliance Inspection.

Applicable Standards and Limitations:

A. Control of Visible Emissions

COMAR 26.11.09.05A – Fuel Burning Equipment

“(2) Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity.”

(3) Exceptions. “Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if:

- (a) The visible emissions are not greater than 40 percent opacity; and
- (b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period.”

Compliance Demonstration

The Permittee shall:

- (1) Properly operate and maintain the boilers in a manner to prevent visible emissions; and
- (2) Verify no visible emissions when burning No. 2 fuel oil. The Permittee shall perform a visual observation for a 6-minute period once for each 168 hours that the boiler burns oil or at a minimum of once per year.

The Permittee shall perform the following if emissions are visible:

- (1) Inspect combustion control system and boiler operations,
- (2) Perform all necessary adjustments and/or repairs to the boiler within 48 hours, so that visible emissions are eliminated;
- (3) Document in writing the results of the inspections, adjustments and/or repairs to the boiler; and

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- (4) After 48 hours, if the required adjustments and/or repairs have not eliminated the visible emissions, perform Method 9 observations once daily for 18 minutes until corrective actions have eliminated the visible emissions.

The Permittee shall:

- (1) Maintain an operation manual and prevention maintenance plan on site;
- (2) Maintain a record of the maintenance performed that relates to combustion performance;
- (3) Maintain a log of visible emissions observations performed and make it available to the Department's representative upon request;
- (4) Maintain a record of the hours that No. 2 fuel oil is burned.

[Reference: COMAR 26.11.03.06C].

The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations".

Rationale for Periodic Monitoring: Boilers that burn natural gas or No. 2 fuel oil with a rated heat input capacity of less than 10 MM Btu/hr. typically never have visible emissions if properly operated and maintained. Boilers in this size range are set up to operate in an automatic mode without oversight of an operator. The completion of annual preventative maintenance as recommended by the boiler manufacturer, focusing on combustion performance, is sufficient to maintain compliance with the no visible emissions requirement. Even though there is not a specific schedule to perform observations of the stack emissions, the Permittee is required under the general reporting requirement for excess emissions and deviations to report incidents when visible emissions are visible.

B. Control of Sulfur Oxides

COMAR 26.11.09.07A(2) - Sulfur Content Limitations for Fuel.

"A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV: (b) Distillate fuel oils, 0.3 percent."

Compliance Demonstration

The Permittee shall obtain a certification from the fuel supplier indicating that the oil complies with the limitation on the sulfur content of the fuel oil. **[Reference: COMAR 26.11.03.06C]**

The Permittee shall maintain records of fuel supplier's certification and shall make records available to the Department upon request. **[Reference: COMAR 26.11.03.06C]**

The Permittee shall report fuel supplier certification to the Department upon request.

[Reference: COMAR 26.11.09.07C].

Rationale for Periodic Monitoring: The strategy for the compliance demonstration is based on the compliance demonstration for NSPS Subpart Dc boilers that burn fuel oil.

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C. Control of Nitrogen Oxides

COMAR 26.11.09.08B(5) - Operator Training.

- (a) "For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.
- (b) The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department."

COMAR 26.11.09.08E. - Requirements for Fuel-Burning Equipment with a Rated Heat Input Capacity of 100 Million Btu Per Hour or Less. "A person who owns or operates fuel-burning equipment with a rated heat input capacity of 100 Million Btu per hour or less shall:

- (1) Submit to the Department an identification of each affected installation, the rated heat input capacity of each installation, and the type of fuel burned in each;
- (2) Perform a combustion analysis for each installation at least once each year and optimize combustion based on the analysis;
- (3) Maintain the results of the combustion analysis at the site for at least 2 years and make this data available to the Department and the EPA upon request;
- (4) Once every 3 years, require each operator of the installation to attend operator training programs on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and
- (5) Prepare and maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request."

Compliance Demonstration

The Permittee shall perform a combustion analysis once a year. **[Reference: COMAR 26.11.09.08E(2)]**

The Permittee shall optimize combustion based on the annual combustion analysis.

[Reference: COMAR 26.11.09.08E(2)]

The Permittee shall maintain:

- (1) Records of the results of the annual combustion analysis on site. **[Reference: COMAR 26.11.09.08E(3)]**
- (2) Records of training program attendance for each operator at the site. **[Reference: COMAR 26.11.09.08E(5)]**

The Permittee shall submit:

- (1) The results of combustion analysis to the department and the EPA upon request. **[Reference: COMAR 26.11.09.08E(3)]**
- (2) A record of training program attendance for each operator to the Department upon request. **[Reference: COMAR 26.11.09.08E(5)].**

D. Operating Limitation

The Permittee shall only burn No. 2 fuel oil in EU-31 unless the Permittee applies for and receives an approval or permit from the Department to burn alternate fuels. **[Reference: COMAR 26.11.02.09A]**

Compliance Demonstration

The Permittee shall maintain records of the quantity of fuel burned. **[Reference: COMAR 26.11.02.19C(1)(c)]**

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The Permittee shall submit records of the quantity of fuel burned with the annual emissions certification report. See permit condition 8 of Section III.

Emission Units: EU-1 thru EU-3 & EU-31 Cont'd

EU-1 – Boiler #1: One (1) Indeck natural gas/No. 2 fuel oil fired boiler rated at 55 million Btu per hour heat input. **[003-0208-5-0681]**

EU-2 - Boiler #2: One (1) Indeck natural gas/No. 2 fuel oil fired boiler rated at 55 million Btu per hour heat input. **[003-0208-5-0682]**

EU-3 - Boiler #3: One (1) Indeck natural gas/No. 2 fuel oil fired boiler rated at 25 million Btu per hour heat input. **[003-0208-5-0683]**

EU-31: One (1) Smith No. 2 fuel oil boiler rated at 3.22 million Btu per hour heat input used for heat and process steam located in Building 123. **[003-0208-4-0886]**. This boiler was installed in 2014 replacing EU-9 boiler.

Applicable Standards and Limitations:

Control of HAPs:

40 CFR Part 63 Subpart JJJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

40 CFR §63.11193 - Am I subject to this subpart?

“You are subject to this subpart if you own or operate an industrial, commercial, or institutional boiler as defined in §63.11237 that is located at, or is part of, an area source of hazardous air pollutants (HAP), as defined in §63.2, except as specified in §63.11195.”

40 CFR §63.11194 - What is the affected source of this subpart?

“(a) This subpart applies to each new, reconstructed, or existing affected source as defined in paragraphs (a)(1) and (2) of this section.

(1) The affected source of this subpart is the collection of all existing industrial, commercial, and institutional boilers within a subcategory, as listed in §63.11200 and defined in §63.11237, located at an area source.”

(2) The affected source of this subpart is each new or reconstructed industrial, commercial, or institutional boiler within a subcategory, as listed in §63.11200 and as defined in §63.11237, located at an area source.

“(b) An affected source is an existing source if you commenced construction or reconstruction of the affected source on or before June 4, 2010.”

“(c) An affected source is a new source if you commenced construction of the affected source after June 4, 2010, and the boiler meets the applicability criteria at the time you commence construction.”

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§63.11196 - What are my compliance dates?

“(a) If you own or operate an existing affected boiler, you must achieve compliance with the applicable provisions in this subpart as specified in paragraphs (a)(1) through (3) of this section.

(1) If the existing affected boiler is subject to a work practice or management practice standard of a tune-up, you must achieve compliance with the work practice or management practice standard no later than March 21, 2014.

(2) *Not Applicable.*

(3) If the existing affected boiler is subject to the energy assessment requirement, you must achieve compliance with the energy assessment requirement no later than March 21, 2014.”

“(c) If you start up a new affected source after May 20, 2011, you must achieve compliance with the provisions of this subpart upon startup of your affected source.”

§63.11201 - What standards must I meet?

“(b) You must comply with each work practice standard, emission reduction measure, and management practice specified in **Table 2** to this subpart that applies to your boiler. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in **Table 2** to this subpart satisfies the energy assessment requirement. A facility that operates under an energy management program established through energy management systems compatible with ISO 50001, that includes the affected units, also satisfies the energy assessment requirement.”

“(d) These standards apply at all times the affected boiler is operating, except during periods of startup and shutdown as defined in §63.11237, during which time you must comply only with **Table 2** to this subpart.”

Table 2 to Subpart JJJJJJ of Part 63—Work Practice Standards, Emission Reduction Measures, and Management Practices

As stated in §63.11201, you must comply with the following applicable work practice standards, emission reduction measures, and management practices:

If your boiler is in this subcategory	You must meet the following.
4. Existing oil-fired boilers with heat input capacity greater than 5 MMBtu/hr. that do not meet the definition of seasonal boiler or limited-use boiler or use an oxygen trim system that maintains an optimum air-to-fuel ratio. EU-1 thru EU-3	Conduct an initial tune-up as specified in §63.11214, and conduct a tune-up of the boiler biennially as specified in §63.11223
13. New oil-fired boilers with heat input capacity of equal to or less than 5 MMBtu/hr. EU-31	Conduct a tune-up of the boiler every 5 years as specified in §63.11223.
16. Existing coal-fired, biomass-fired, or oil-fired boilers (units with heat	Must have a one-time energy assessment performed by a qualified energy assessor. An energy

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If your boiler is in this subcategory	You must meet the following.
input capacity of 10 MMBtu/hr. and greater), not including limited-use boilers	assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table satisfies the energy assessment requirement. Energy assessor approval and qualification requirements are waived in instances where past or amended energy assessments are used to meet the energy assessment requirements. A facility that operated under an energy management program developed according to the ENERGY STAR guidelines for energy management or compatible with ISO 50001 for at least 1 year between January 1, 2008, and the compliance date specified in §63.11196 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items (1) to (4) appropriate for the on-site technical hours listed in §63.11237:
	(1) A visual inspection of the boiler system,
	(2) An evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints,
	(3) An inventory of major energy use systems consuming energy from affected boiler(s) and which are under control of the boiler owner or operator,
	(4) A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage,
	(5) A list of major energy conservation measures that are within the facility's control,
	(6) A list of the energy savings potential of the energy conservation measures identified, and
	(7) A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

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Compliance Demonstration

40 CFR §63.11205 - What are my general requirements for complying with this subpart?

“(a) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.”

Initial Compliance Requirements

40 CFR §63.11210 - What are my initial compliance requirements and by what date must I conduct them?

“(c) For existing affected boilers that have applicable work practice standards, management practices, or emission reduction measures, you must demonstrate initial compliance no later than the compliance date that is specified in §63.11196 and according to the applicable provisions in §63.7(a)(2), except as provided in paragraph (j) of this section.”

“(g) For new or reconstructed affected boilers that have applicable work practice standards or management practices, you are not required to complete an initial performance tune-up, but you are required to complete the applicable biennial, or 5-year tune-up as specified in §63.11223 no later than 25 months or 61 months, respectively, after the initial startup of the new or reconstructed affected source.”

40 CFR §63.11214 - How do I demonstrate initial compliance with the work practice standard, emission reduction measures, and management practice?

“(b) If you own or operate an existing or new biomass-fired boiler or an **existing or new oil-fired boiler**, you must conduct a performance tune-up according to §63.11210(c) or (g), as applicable, and §63.11223(b). If you own or operate an existing biomass-fired boiler or **existing oil-fired boiler**, you must submit a signed statement in the Notification of Compliance Status report that indicates that you conducted an initial tune-up of the boiler.”

“(c) If you own or operate an **existing** affected boiler with a heat input capacity of 10 million Btu per hour or greater, you must submit a signed certification in the Notification of Compliance Status report that an energy assessment of the boiler and its energy use systems was completed according to **Table 2** to this subpart and that the assessment is an accurate depiction of your facility at the time of the assessment or that the maximum number of on-site technical hours specified in the definition of energy assessment applicable to the facility has been expended.”

40 CFR §63.11223 - How do I demonstrate continuous compliance with the work practice and management practice standards?

“(a) For affected sources subject to the work practice standard or the management practices of a tune-up, you must conduct a performance tune-up according to paragraph (b) of this section and keep records as required in §63.11225(c) to demonstrate

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continuous compliance. You must conduct the tune-up while burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up.”

“(b) Except as specified in paragraphs (c) through (f) of this section, you must conduct a tune-up of the boiler biennially to demonstrate continuous compliance as specified in paragraphs (b)(1) through (7) of this section. Each biennial tune-up must be conducted no more than 25 months after the previous tune-up. For a new or reconstructed boiler, the first biennial tune-up must be no later than 25 months after the initial startup of the new or reconstructed boiler.

(1) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection.

(2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.

(3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection.

(4) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject.

(5) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.

(6) Maintain on-site and submit, if requested by the Administrator, a report containing the information in paragraphs (b)(6)(i) through (iii) of this section.

(i) The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler.

(ii) A description of any corrective actions taken as a part of the tune-up of the boiler.

(iii) The type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.

(7) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup.”

“(e) Oil-fired boilers with a heat input capacity of equal to or less than 5 million Btu per hour must conduct a tune-up every 5 years as specified in paragraphs (b)(1) through (7) of this section. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. For a **new** or reconstructed **oil-fired boiler with a heat input capacity of equal to or less than 5 million Btu per hour**, the first 5-year tune-up must

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be no later than 61 months after the initial startup. You may delay the burner inspection specified in paragraph (b)(1) of this section and inspection of the system controlling the air-to-fuel ratio specified in paragraph (b)(3) of this section until the next scheduled unit shutdown, but you must inspect each burner and system controlling the air-to-fuel ratio at least once every 72 months.”

40 CFR §63.11225 - What are my notification, reporting, and recordkeeping requirements?

“(a) You must submit the notifications specified in paragraphs (a)(1) through (5) of this section to the administrator.

(1) You must submit all of the notifications in §§63.7(b); 63.8(e) and (f); and 63.9(b) through (e), (g), and (h) that apply to you by the dates specified in those sections except as specified in paragraphs (a)(2) and (4) of this section.

(2) An Initial Notification must be submitted no later than January 20, 2014, or within 120 days after the source becomes subject to the standard.

(3) *Not Applicable.*

(4) You must submit the Notification of Compliance Status no later than 120 days after the applicable compliance date specified in §63.11196 unless you own or operate a new boiler subject only to a requirement to conduct a biennial or 5-year tune-up or you must conduct a performance stack test. If you own or operate a new boiler subject to a requirement to conduct a tune-up, you are not required to prepare and submit a Notification of Compliance Status for the tune-up. If you must conduct a performance stack test, you must submit the Notification of Compliance Status within 60 days of completing the performance stack test. You must submit the Notification of Compliance Status in accordance with paragraphs (a)(4)(i) and (vi) of this section. The Notification of Compliance Status must include the information and certification(s) of compliance in paragraphs (a)(4)(i) through (v) of this section, as applicable, and signed by a responsible official.

(i) You must submit the information required in §63.9(h)(2), except the information listed in §63.9(h)(2)(i)(B), (D), (E), and (F). If you conduct any performance tests or CMS performance evaluations, you must submit that data as specified in paragraph (e) of this section. If you conduct any opacity or visible emission observations, or other monitoring procedures or methods, you must submit that data to the Administrator at the appropriate address listed in §63.13.

(ii) “This facility complies with the requirements in §63.11214 to conduct an initial tune-up of the boiler.”

(iii) “This facility has had an energy assessment performed according to §63.11214(c).”

(iv) *Not Applicable.*”

(v) *Not Applicable.*”

(vi) The notification must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written Notification of Compliance Status must be submitted to the Administrator at the appropriate address listed in §63.13.

(5) *Not Applicable.*

(b) You must prepare, by March 1 of each year, and submit to the delegated authority upon request, an annual compliance certification report for the previous calendar year

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containing the information specified in paragraphs (b)(1) through (4) of this section. You must submit the report by March 15 if you had any instance described by paragraph (b)(3) of this section. For boilers that are subject only to the energy assessment requirement and/or a requirement to conduct a biennial or 5-year tune-up according to §63.11223(a) and not subject to emission limits or operating limits, you may prepare only a biennial, or 5-year compliance report as specified in paragraphs (b)(1) and (2) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with the official's name, title, phone number, email address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart. Your notification must include the following certification(s) of compliance, as applicable, and signed by a responsible official:

(i) "This facility complies with the requirements in §63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler."

(ii) For units that do not qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act: "No secondary materials that are solid waste were combusted in any affected unit."

(iii) "This facility complies with the requirement in §§63.11214(d) and 63.11223(g) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available."

(3) If the source experiences any deviations from the applicable requirements during the reporting period, include a description of deviations, the time periods during which the deviations occurred, and the corrective actions taken.

(4) *Not Applicable.*

(c) You must maintain the records specified in paragraphs (c)(1) through (7) of this section.

(1) As required in §63.10(b)(2)(xiv), you must keep a copy of each notification and report that you submitted to comply with this subpart and all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted.

(2) You must keep records to document conformance with the work practices, emission reduction measures, and management practices required by §63.11214 and §63.11223 as specified in paragraphs (c)(2)(i) through (vi) of this section.

(i) Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned.

(ii) *Not Applicable.*

(iii) For each boiler required to conduct an energy assessment, you must keep a copy of the energy assessment report.

(iv) *Not Applicable.*

(v) *Not Applicable.*

(vi) *Not Applicable.*

(3) *Not Applicable.*

(4) Records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment.

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(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in §63.11205(a), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.

(6) *Not Applicable.*

(7) *Not Applicable.*

“(d) Your records must be in a form suitable and readily available for expeditious review. You must keep each record for 5 years following the date of each recorded action. You must keep each record on-site or be accessible from a central location by computer or other means that instantly provide access at the site for at least 2 years after the date of each recorded action. You may keep the records off site for the remaining 3 years.”

Emission Units: Boilers < 10 million Btu per hour natural gas fired.

EU-19 and EU-20: Two (2) Hydrotherm KN-20 natural gas-fired boilers each rated at 1.99 million Btu per hour heat input. **[003-0208-5-0769 and 5-0770]**

EU-23, EU-24, EU-25 and EU-26: Four (4) Hydrotherm KN-30 natural gas-fired boilers each rated at 3.0 million Btu per hour heat input. **[003-0208-5-0771 through 5-0774]**

EU-27: One (1) Hydrotherm KN-10 natural gas-fired boiler rated at 1.0 million Btu per hour heat input used for production of HTHW located at ARFF Building. **[003-0208-5-0794]**

EU-28: One (1) Cleaver Brooks CFH-700-50-15ST natural gas-fired boiler rated at 1.969 million Btu per hour heat input used for production of HTHW located at LSC Building. **[003-0208-5-0808]**

EU-30: One (1) Trane natural gas-fired boiler rated at 1.65 million Btu per hour heat input used for heat located ARFF Building. **[003-0208-5-0831]**

EU-33 and EU-34: Two (2) KN-30 natural gas-fired boilers rated at 3.00 million Btu per hour heat input. **[003-0208-5-0880 and 5-0881]**

These boilers are not subject to the requirements of 40 CFR 60, Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. The regulation only applies to boilers that are rated greater than 10 million Btu/hr. and less than 100 million Btu/hr.

These boilers are not subject to the requirements of 40 CFR 63, Subpart JJJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources. These boilers are exempt from this regulation per 40 CFR §63.11195(e) because they are gas fired boilers.

40 CFR §63.11195 - Are any boilers not subject to this subpart?

The types of boilers listed in paragraphs (a) through (k) of this section are not subject to this subpart and to any requirements in this subpart.

(e) A gas-fired boiler as defined in this subpart.

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40 CFR §63.11237: What definitions apply to this subpart?

“Gas-fired boiler includes any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or for periodic testing, maintenance, or operator training on liquid fuel. Periodic testing, maintenance, or operator training on liquid fuel shall not exceed a combined total of 48 hours during any calendar year.”

Compliance Status

These boilers were listed as confirmed and in use (Noted in the October 2022s Compliance Inspection).

Applicable Standards and Limitations:

A. Control of Visible Emissions

COMAR 26.11.09.05A – Fuel Burning Equipment

“(2) Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity.”

(3) Exceptions. “Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if:

- (a) The visible emissions are not greater than 40 percent opacity; and
- (b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period.”

Compliance Demonstration

The Permittee shall properly operate and maintain the boilers in a manner to prevent visible emissions. The Permittee shall maintain an operations manual and preventive maintenance plan. The Permittee shall maintain a log of maintenance performed that relates to combustion performance. **[Reference: COMAR 26.11.03.06C]**

The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, “Report of Excess Emissions and Deviations”.

B. Control of Nitrogen Oxides

COMAR 26.11.09.08B(5) - Operator Training

- (a) For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.
- (b) The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department.”

COMAR 26.11.09.08E. - Requirements for Fuel-Burning Equipment with a Rated Heat Input Capacity of 100 Million Btu Per Hour or Less. “A person who owns or operates

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fuel-burning equipment with a rated heat input capacity of 100 Million Btu per hour or less shall:

- (1) Submit to the Department an identification of each affected installation, the rated heat input capacity of each installation, and the type of fuel burned in each;
- (2) Perform a combustion analysis for each installation at least once each year and optimize combustion based on the analysis;
- (3) Maintain the results of the combustion analysis at the site for at least 2 years and make this data available to the Department and the EPA upon request;
- (4) Once every 3 years, require each operator of the installation to attend operator training programs on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and
- (5) Prepare and maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request.”

Compliance Demonstration

The Permittee shall perform a combustion analysis once a year. **[Reference: COMAR 26.11.09.08E(2)]**

The Permittee shall optimize combustion based on the annual combustion analysis.

[Reference: COMAR 26.11.09.08E(2)]

The Permittee shall maintain:

- (1) The Permittee shall maintain records of the results of the annual combustion analysis on site. **[Reference: COMAR 26.11.09.08E(3)]**
- (2) Record of training program attendance for each operator at the site. **[Reference: COMAR 26.11.09.08E(5)]**

The Permittee shall submit:

- (1) The results of combustion analysis to the department and the EPA upon request. **[Reference: COMAR 26.11.09.08E(3)]**
- (2) A record of training program attendance for each operator to the Department upon request. **[Reference: COMAR 26.11.09.08E(5)].**

For EU-27, EU-28 & EU-30 only

COMAR 26.11.09.08F. Requirements for Space Heaters.

“(1) A person who owns or operates a space heater as defined in Regulation .01B of this chapter shall:

- (a) Submit to the Department a list of each affected installation on the premises and the types of fuel used in each installation;
- (b) Develop an operating and maintenance plan to minimize NO_x emissions based on the recommendations of equipment vendors and other information including the source's operating and maintenance experience;
- (c) Implement the operating and maintenance plan and maintain the plan at the premises for review upon request by the Department;
- (d) Require installation operators to attend in-State operator training programs once every 3 years on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and
- (e) Prepare and maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request.

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(2) A person who owns or operates an installation that no longer qualifies as a space heater shall inform the Department not later than 60 days after the date when the fuel-burning equipment did not qualify and shall meet the applicable fuel-burning equipment RACT requirement in this regulation.

COMAR 26.11.09.01B(15) states, "Space heater" means fuel-burning equipment that consumes more than 60 percent of its annual fuel during the period from October 31 of one year through March 31 of the following year. For the purpose of this regulation, annual fuel use is the total fuel consumed during the period October 1 of one year to September 30 of the following year, beginning October 1, 1989."

Compliance Demonstration

The Permittee shall develop and maintain an operating and maintenance plan to minimize NO_x. [Reference: COMAR 26.11.09.08F(1)(b)]

The Permittee shall maintain:

- (1) Records of maintenance performed that relates to combustion performance in keeping with the requirements of an operations and maintenance plan. [Reference: COMAR 26.11.09.08F(1)(c)]
- (2) Record of training program attendance for each operator. [Reference: COMAR 26.11.09.08F(1)(e)].
- (3) An operations manual and preventive maintenance plan. [Reference: COMAR 26.11.09.08F(1)(b)].
- (4) Records of fuel use that demonstrate that the boiler meets the definition of a space heater. [Reference: COMAR 26.11.09.08K(3) and COMAR 26.11.03.06C].

The Permittee shall submit a record of training program attendance for each operator to the Department upon request. [Reference: COMAR 26.11.09.08F(1)(e)]

C. Operating Limitation

The Permittee shall burn only natural gas in the eight (8) boilers unless the Permittee applies for and receives an approval or permit from the Department to burn alternate fuels. [Reference: COMAR 26.11.02.09A & MDE Permit Nos. 003-0208-5-0769 through 5-0774 issued on 05/13/13]

Compliance Demonstration

The Permittee shall maintain monthly records of the total natural gas usage in million cubic feet for the eight (8) boilers. [Reference: MDE Permit Nos. 003-0208-5-0769 thru 5-0774 issued on 05/13/2013 and COMAR 26.11.03.06]

The Permittee shall submit records of the quantity and type of fuels burned with the annual emissions certification report. See permit condition 8 of Section III.

**Emission Units: EU-4 through EU-6; EU-10 thru EU-18, EU-29 & EU-32 -
Emergency Generators.**

EU-4 - One (1) Spectrum 500DS4 505 kW standby diesel fired emergency generator used for electricity generation located at Pier D-Front of Terminal Building. [003-0208-9-0916]. See Table IV-4b for additional requirements.

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EU-5 - One (1) Caterpillar SR4 750 kW standby diesel-fired emergency generator used for electricity generation located at Daily Parking Garage. **[003-0208-9-0910]** See Table IV-4b for additional requirements.

EU-6 – One (1) Caterpillar 1207 bhp (900 kW) standby diesel fired emergency generator used for electricity generation located at Pier A. **[003-0208-9-0914]** See Table IV-4b for additional requirements.

EU-10 - One (1) Caterpillar SR4B 600 kW standby diesel fired Emergency generator located at International Terminal Roof. **[003-0208-9-0912]** See Table IV-4b for additional requirements.

EU-11 - One (1) Kohler 644 bhp (410 kW) standby diesel fired emergency generator used for electricity generation located at MAC Building. **[003-0208-9-0913]** See Table IV-4b for additional requirements.

EU-12 - One (1) Caterpillar SR4 600 kW standby diesel-fired emergency generator used for electricity generation located at Airfield Lighting Vault. **[003-0208-9-0909]** See Table IV-4b for additional requirements.

EU-13 - One (1) Onan 600 kW standby diesel fired emergency generator used for electricity generation located at Hourly Parking Garage. **[003-0208-9-0911]** See Table IV-4b for additional requirements.

EU-14 - One (1) Generac 671 bhp (500 kW) standby diesel-fired emergency generator used for electricity generation located at Pier A Triturator. **[003-0208-9-0915]** See Table IV-4b for additional requirements.

EU-15 - One (1) Katolight 1495 bhp (900kW) standby diesel-fired emergency generator used for electricity generation located at International Terminal LL. **[003-0208-9-0948]** See Table IV-4a for additional requirements.

EU-16 – One (1) Detroit Diesel 2000 kW standby diesel-fired emergency generator used for electricity generation located at CDC. **[003-0208-9-1030]**. See Table IV-4a for additional requirements.

EU-17 - One (1) Baldor 2000 kW standby diesel-fired emergency generator used for electricity generation located at Central Utility Plant. **[003-0208-9-1053]**. See Table IV-4a for additional requirements.

EU-18 – One (1) MTU Onsite Energy 900-XC6DT2 900kW (1354 hp) standby diesel-fired emergency generator used for electricity generation located at aircraft gate C-2. **[003-0208-9-1070]** See Table IV-4a for additional requirements.

EU-29 - One (1) MTU Onsite Energy 750kW standby diesel-fired emergency generator used for electricity generation located at OMU Building. **[003-0208-9-1109]**. See Table IV-4a for additional requirements.

EU-32 - One (1) Temporary generator rated at 1000 kW or less used for electricity generation. **[003-0208-9-1140]** See Table IV-4a for additional requirements.

EU-4 thru EU-6 and EU-10 thru EU-14 are not subject to the NSPS requirements but are subject to the NESHAP requirements of Subpart ZZZZ. See Table IV-4b of the Title V Operating Permit.

EU-15 thru EU-18, EU-29 & EU-32 are subject to the NSPS requirements of Subpart IIII and NESHAP requirements of Subpart ZZZZ. By complying with NSPS Subpart IIII, no further requirement is needed for NESHAP Subpart ZZZZ. See Table IV-4a of the Title V Operating Permit.

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Compliance Status

The 2022 Emissions Certification Report noted the following hours of operation for each generator in 2022:

Unit	Hours of Operation	Capacity Factor (%)
EU-4	44.6	0.51
EU-5	39	0.45
EU-6	48	0.55
EU-10	43	0.49
EU-11	44.6	0.51
EU-12	141	1.61
EU-13	31.9	0.36
EU-14	9	0.10
EU-15	39	0.45
EU-16	48.21	0.55
EU-17	8	0.09
EU-18	41.64	0.48
EU-29	9.66	0.11
EU-32	0.00	0.00

Applicable Standards and Limitations:

A. Control of Visible Emissions

COMAR 26.11.09.05E - Stationary Internal Combustion Engine Powered Equipment

- (2) “Emissions During Idle Mode. A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.
- (3) Emissions During Operating Mode. A person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.
- (4) Exceptions.
 - (a) Section E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.
 - (b) Section E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:
 - (i) Engines that are idled continuously when not in service: 30 minutes;
 - (ii) All other engines: 15 minutes.
 - (c) Section E(2) and (3) of this regulation do not apply while maintenance, repair, or testing is being performed by qualified mechanics.”

Compliance Demonstration

The Permittee shall perform preventive maintenance to optimize combustion performance. The Permittee shall retain records of preventive maintenance on site and make them available to the Department upon request.

[Reference: COMAR 26.11.03.06C]

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The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations".

B. Control of Sulfur Oxides

COMAR 26.11.09.07A(2) - Sulfur Content Limitations for Fuel.

"A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV: (b) Distillate fuel oils, 0.3 percent."

Compliance Demonstration

The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation. [Reference: **COMAR 26.11.03.06C**]

The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation. [Reference: **COMAR 26.11.09.07C**]

The Permittee shall report fuel supplier certification for sulfur content to the Department upon request. [Reference: **COMAR 26.11.09.07C and COMAR 26.11.03.06C**]

C. Control of Nitrogen Oxides

COMAR 26.11.09.08B(5) - Operator Training.

(a) "For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.

(b) The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department."

COMAR 26.11.09.08G(1) - Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less, and Combustion Turbines with a Capacity Factor Greater than 15 Percent.

"A person who owns or operates fuel-burning equipment with a capacity factor (as defined in 40 CFR Part 72.2) of 15 percent or less shall:

- (a) Provide certification of the capacity factor of the equipment to the Department in writing;
- (b) For fuel-burning equipment that operates more than 500 hours during a calendar year, perform a combustion analysis and optimize combustion at least once annually;
- (c) Maintain the results of the combustion analysis at the site for at least 2 years and make these results available to the Department and the EPA upon request;
- (d) Require each operator of an installation, except combustion turbines, to attend operator training programs at least once every 3 years, on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and
- (e) Maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request."

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Compliance Demonstration

The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year. **[Reference: COMAR 26.11.09.08G(1)(b)].**

The Permittee shall maintain:

- (1) Records of the results of the combustion analysis at the site and make these results available to the Department and the EPA upon request. **[Reference: COMAR 26.11.09.08G(1)(c) and COMAR 26.11.03.06C].**
- (2) Record of training program attendance for each operator at the site and make these records available to the Department upon request. **[Reference: COMAR 26.11.09.08G(1)(e) and COMAR 26.11.03.06C].**
- (3) Records of hours of operation and fuel usage on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period. **[Reference: COMAR 26.11.03.06C]**

The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing with the annual emission certification. **[Reference: COMAR 26.11.09.08G(1)(a)]**

Emission Units: EU-15 through EU-18, EU-29 & EU-32 - Emergency Generators cont'd

EU-15 - One (1) Katolight 1495 bhp (900kW) standby diesel-fired emergency generator used for electricity generation located at International Terminal LL. **[003-0208-9-0948].** Engine manufactured in 2008.

EU-16 – One (1) Detroit Diesel 2000 kW standby diesel-fired emergency generator used for electricity generation located at CDC. **[003-0208-9-1030].** Engine manufactured in 2009

EU-17 - One (1) Baldor 2000 kW standby diesel-fired emergency generator used for electricity generation located at Central Utility Plant. **[003-0208-9-1053].** Engine manufactured in April 2012.

EU-18 – One (1) MTU Onsite Energy 900-XC6DT2 900kW (1354 hp) standby diesel-fired emergency generator used for electricity generation located at aircraft gate C-2. **[003-0208-9-1070].** Engine manufactured in November 2012.

EU-29 - One (1) MTU Onsite Energy 750kW standby diesel-fired emergency generator used for electricity generation located at OMU Building. **[003-0208-9-1109].** Engine manufactured in 2015.

EU-32 - One (1) Temporary generator rated at 1000 kW or less used for electricity generation. **[003-0208-9-1140].** Engine manufactured in 2007 or newer.

Applicable Standards and Limitations:

- A. New Source Performance Standards (**NSPS**) under 40 CFR Part 60 Subpart IIII for Stationary Compression Ignition Internal Combustion Engines.

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Note: Installations subject to 40 CFR Part 60, Subpart IIII, beginning October 1, 2010, must comply with the fuel standards of §60.4207 which limit the maximum sulfur content of the fuel to 15 ppm.

- (1) This permit is valid only for the installation of an emergency diesel generator with piston displacement less than 10 liters per cylinder.
- (2) The provisions of 40 CFR Part 60, Subpart IIII apply if the emergency diesel generator uses a diesel engine manufactured after April 1, 2006. **[Reference: 40 CFR §60.4200]**
- (3) An emergency diesel generator or diesel engine subject to the requirements of 40 CFR 60, Subpart IIII (“NSPS emergency diesel generator” or “NSPS emergency diesel engine”) shall be equipped with a non-resettable hour meter. **[Reference: 40 CFR §60.4209(a)]**
- (4) For 2007 model year and later model year NSPS emergency diesel engines, the Permittee must purchase and install an engine certified to the emission standards of §60.4205(b) for the same model year and maximum engine horsepower, to wit: **[Reference: 40 CFR §60.4211(c)]**
 - (a) For engines with a maximum engine power less than or equal to 2,237 KW (3,000 HP), the certification emission standards for new nonroad diesel engines in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants; **[Reference: 40 CFR §62.4202(a)(2)]**
- (5) After December 31, 2008, owners and operators may not install an emergency diesel generator that does not meet the applicable requirements for 2007 model year engines. **[Reference: 40 CFR §60.4208]**
- (6) The requirements of condition (5) above do not apply to owners or operators of NSPS emergency diesel engines that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location. **[Reference: 40 CFR §60.4208]**

Compliance Demonstration

- (1) The Permittee shall maintain a log for the emergency generator indicating the amounts of fuel oil combusted, the hours of operation, and reason for generator operation (i.e., maintenance or operational testing, power outage, etc.).
- (2) The Permittee shall maintain on site for the life of the source the following records for the emergency diesel generator(s):
 - (a) Documentation of the manufacture date of the diesel engine, if manufactured prior to April 1, 2006, and the manufacturer model year of the diesel engine;
 - (b) The installation date of each emergency diesel generator; and
 - (c) The certifications of compliance or manufacturer engine test data required by 40 CFR §60.4211 and §60.4214(b).

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- (3) Beginning October 1, 2010, for any NSPS emergency diesel generator the Permittee shall for each fuel delivery obtain from the fuel supplier a fuel supplier certification consisting of the name of the oil supplier, the date of delivery, the amount of fuel delivered, and a statement from the fuel supplier that the diesel fuel oil complies with the specifications of 40 CFR §80.510. The Permittee shall maintain the required records on site for at least five (5) years.
-

- B. National Emissions Standards for Hazardous Air Pollutants (**NESHAP**) promulgated under 40 CFR 63, Subparts A and ZZZZ for Reciprocating Internal Combustion Engines

40 CFR §63.6590(c) - What parts of my plant does this subpart cover?

“This subpart applies to each affected source.

Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of **40 CFR part 60 subpart IIII**, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. *No further requirements apply for such engines under this part.*

(1) A new or reconstructed stationary RICE located at an area source.”

Note: New stationary RICE located at an area source comply with 40 CFR Part 63, Subpart ZZZZ by complying with 40 CFR Part 60, Subpart IIII per 40 CFR §63.6590(c)(1)]

Compliance Demonstration

See NSPS Requirements above.

C. Operational Limits

- (1) The Permittee must operate and maintain an NSPS emergency diesel generator and control devices according to the manufacturer’s written instructions or according to procedures developed by the owner or operator that are approved by the manufacturer. Additionally, the Permittee may change only those settings that are permitted by the manufacturer. The Permittee must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they may apply to an owner or operator. **[Reference: 40 CFR §60.4211]**
- (2) Beginning October 1, 2010, an NSPS emergency diesel generator must combust diesel fuel meeting the requirements of 40 CFR §80.510(b), unless a waiver is obtained from the Department and/or the EPA Administrator. **[Reference: 40 CFR §60.4207]**
- (3) In accordance with 40 CFR §60.4211(f), use of each NSPS emergency diesel generator for the purpose of maintenance checks and readiness testing, as discussed in 40 CFR §60.4211(f)(2)(i) and (ii) is limited to 100 hours per year or less unless prior approval is received from the Department.

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Compliance Demonstration

The Permittee shall report the amounts of fuel oil combusted, the hours of operation, and reason for generator operation (i.e., maintenance or operational testing, power outage, etc.) to the Department in the annual emission certification report due on April 1 of each year. **[Reference: COMAR 26.11.03.06C]**

Emission Units: EU-4 through EU-6 & EU-10 through EU-14 – Emergency Generators Cont'd

EU-4 - One (1) Spectrum 500DS4 505 kW standby diesel fired emergency generator used for electricity generation located at Pier D-Front of Terminal Building. **[003-0208-9-0916]**.

EU-5 - One (1) Caterpillar SR4 750 kW standby diesel-fired emergency generator used for electricity generation located at Daily Parking Garage. **[003-0208-9-0910]**.

EU-6 -- One (1) Caterpillar 1207 bhp (900 kW) standby diesel fired emergency generator used for electricity generation located at Pier A. **[003-0208-9-0914]**.

EU-10 - One (1) Caterpillar SR4B 600 kW standby diesel fired Emergency generator located at International Terminal Roof. **[003-0208-9-0912]**.

EU-11 - One (1) Kohler 644 bhp (410 kW) standby diesel fired emergency generator used for electricity generation located at MAC Building. **[003-0208-9-0913]**.

EU-12 - One (1) Caterpillar SR4 600 kW standby diesel-fired emergency generator used for electricity generation located at Airfield Lighting Vault. **[003-0208-9-0909]**.

EU-13 - One (1) Onan 600 kW standby diesel fired emergency generator used for electricity generation located at Hourly Parking Garage. **[003-0208-9-0911]**.

EU-14 - One (1) Generac 671 bhp (500 kW) standby diesel-fired emergency generator used for electricity generation located at Pier A Triturator. **[003-0208-9-0915]**

Applicable Standards and Limitations:

§63.6595(a) - When do I have to comply with this subpart?

Affected sources. (1) If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, **or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than May 3, 2013.**”.

40 CFR §63.6603 - What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

“Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

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- (a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 1b and Table 2b to this subpart that apply to you.”

Table 2d to Subpart ZZZZ of Part 63—Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

“As stated in §§63.6603 and 63.6640, you must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:

For each .	You must meet the following requirement, except during periods of startup .	During periods of startup, you must .
4. Emergency stationary CI RICE and black start stationary CI RICE. ²	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; ¹	
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.”	

¹Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2d of this subpart.

²If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State, or local law under which the risk was deemed unacceptable.

40 CFR §63.6605 - What are my general requirements for complying with this subpart?

- (a) “You must be in compliance with the emission limitations and operating limitations in this subpart that apply to you at all times.”
- (b) “At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have

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been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.”

Compliance Demonstration

40 CFR §63.6625 - What are my monitoring, installation, collection, operation, and maintenance requirements?

“(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer’s emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

(3) An **existing emergency** or black start stationary RICE located at an area source of HAP emissions.”

“(f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an **existing emergency stationary RICE located at an area source of HAP emissions**, you must install a non-resettable hour meter if one is not already installed.”

“(h) If you operate a new, reconstructed, or **existing stationary engine**, you must minimize the engine’s time spent at idle during startup and minimize the engine’s startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

“(i) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.”

40 CFR §63.6640 - How do I demonstrate continuous compliance with the emission limitations and operating limitations?

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“(a) You must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.”

“(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.”

“(f) **Requirements for emergency stationary RICE.** If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1), (2), and (4) of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1), (2), and (4), is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1),(2), and (4), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary RICE in emergency situations.

(2) You may operate your emergency stationary RICE for the purpose specified in paragraph (f)(2)(i) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f) (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

(4) Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (f)(2) of this section. Except as provided in paragraphs (f)(4)(i) and (ii) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

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(i) Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution system.

(ii) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.”

40 CFR §63.6655(e) - What records must I keep?

“(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;

(2) An existing stationary emergency RICE.

(3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.”

(f) If you own or operate any of the stationary RICE in paragraphs (f)(1) or (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response. (2) An existing emergency

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stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.”

“Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.” **[Footnote 2 of 40 CFR Part 63, Subpart ZZZZ, Table 2d]**

Emission Units: EU-7 - Storage Tank

EU-7 - One (1) motor gasoline storage tank (8000-gallon gasoline underground storage tank) located in Field Maintenance Building 116. **[003-0208-9-0894]** Stage II vapor recovery system was decommissioned on February 28, 2017. The facility passed the pressure decay, vapor tie-in and pressure vacuum vent valves tests on February 28, 2017.

Compliance Status

Per 2022 Emissions Certification Report, the net throughput of gasoline for 2022 is 138,805 gals.

Applicable Standards and Limitations:

Control of VOC Emissions

COMAR 26.11.13.04C – Small Storage Tanks.

- (1) **“Applicability.** This section applies to a person who owns or operates:
 - (a) A gasoline storage tank that has a tank capacity greater than 2,000 gallons but less than 40,000 gallons; or
 - (b) A gasoline tank truck used to transfer gasoline into a storage tank that is listed in Sec. C(1)(a) of this regulation.”
- (2) **Stage I Vapor Recovery.** “An owner or operator of a gasoline tank truck or an owner or operator of a stationary storage tank subject to this regulation may not cause or permit gasoline to be loaded into a stationary tank unless the loading system is equipped with a vapor balance line that is properly installed, maintained and used.”

COMAR 26.11.13.04D. General Standards. “A person may not cause or permit gasoline or VOC having a TVP of 1.5 psia (10.3 kilonewtons/square meter) or greater to be loaded into any tank truck, railroad tank car, or other contrivance unless the:

- (1) Loading connections on the vapor lines are equipped with fittings that have no leaks and that automatically and immediately close upon disconnection to prevent release of gasoline or VOC from these fittings; and
- (2) Equipment is maintained and operated in a manner to prevent avoidable liquid leaks during loading or unloading operations.”

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Compliance Demonstration

Once a month during a delivery, the Permittee shall visually inspect all components on the premises for leaks and retain a record of these leak inspections. If leaks are detected, corrective action shall be as follows:

(1) Take immediate action to repair all observed VOC leaks that can be repaired with 48 hours; and

(2) Repair all other leaking components not later than 15 days after the leak is discovered. If a replacement part is needed, the part shall be ordered within 3 days after discovery of the leak, and the leak shall be repaired within 48 hours after receiving the part.

The Permittee shall maintain the results of monthly inspections and records of dates on which corrective actions and repairs were completed. The Permittee shall make records available to the Department upon request. **[Reference: COMAR 26.11.03.06C]**

Emission Units: EU-7 - Storage Tank (Cont'd).

EU-7 - One (1) motor gasoline storage tank (8000 gallons gasoline underground storage tank) located in Field Maintenance Building 116. **[003-0208-9-0894]**

Stage II vapor recovery system was decommissioned on February 28, 2017. The facility passed the pressure decay, vapor tie-in and pressure vacuum vent valves tests on February 28, 2017.

Applicable Standards and Limitations:

Control of HAPs:

40 CFR Part 63 Subpart CCCCCC—National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities

40 CFR §63.11110 - What is the purpose of this subpart?

This subpart establishes national emission limitations and management practices for hazardous air pollutants (HAP) emitted from the loading of gasoline storage tanks at gasoline dispensing facilities (GDF). This subpart also establishes requirements to demonstrate compliance with the emission limitations and management practices.

40 CFR §63.11111 - Am I subject to the requirements in this subpart?

“(a) The affected source to which this subpart applies is each GDF that is located at an area source. The affected source includes each gasoline cargo tank during the delivery of product to a GDF and also includes each storage tank.

(c) If your GDF has a monthly throughput of 10,000 gallons of gasoline or more, you must comply with the requirements in §63.11117.”

40 CFR §63.11116 - Requirements for facilities with monthly throughput of less than 10,000 gallons of gasoline.

(a) “You must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

(1) Minimize gasoline spills;

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- (2) Clean up spills as expeditiously as practicable;
 - (3) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;
 - (4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.”
- (b) “You are not required to submit notifications or reports as specified in §63.11125, §63.11126, or subpart A of this part, but you must have records available within 24 hours of a request by the Administrator to document your gasoline throughput.”
- (c) “You must comply with the requirements of this subpart by the applicable dates specified in §63.11113.”
- (d) “Portable gasoline containers that meet the requirements of 40 CFR part 59, subpart F, are considered acceptable for compliance with paragraph (a)(3) of this section.”

40 CFR §63.11117 - Requirements for facilities with monthly throughput of 10,000 gallons of gasoline or more.

- (a) “You must comply with the requirements in section §63.11116(a).”
- (b) “Except as specified in paragraph (c) of this section, you must only load gasoline into storage tanks at your facility by utilizing submerged filling, as defined in §63.11132, and as specified in paragraphs (b)(1), (b)(2), or (b)(3) of this section. The applicable distances in paragraphs (b)(1) and (2) shall be measured from the point in the opening of the submerged fill pipe that is the greatest distance from the bottom of the storage tank.
- (1) Submerged fill pipes installed on or before November 9, 2006, must be no more than 12 inches from the bottom of the tank.
 - (2) Submerged fill pipes installed after November 9, 2006, must be no more than 6 inches from the bottom of the tank.
 - (3) Submerged fill pipes not meeting the specifications of paragraphs (b)(1) or (b)(2) of this section are allowed if the owner or operator can demonstrate that the liquid level in the tank is always above the entire opening of the fill pipe. Documentation providing such demonstration must be made available for inspection by the Administrator's delegated representative during the course of a site visit.”
- (c) *Not Applicable.*
- (d) “You must have records available within 24 hours of a request by the Administrator to document your gasoline throughput.”
- (e) “You must submit the applicable notifications as required under §63.11124(a).”
- (f) “You must comply with the requirements of this subpart by the applicable dates contained in §63.11113 (January 10, 2011).”

Compliance Demonstration

The Permittee must monitor and record monthly gasoline throughput. [Reference: COMAR 26.11.03.06C]

“You must have records available within 24 hours of a request by the Administrator to document your gasoline throughput.” [Reference: 40 CFR §63.11117(d)]

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“You must submit the applicable notifications as required under §63.11124(a).”
[Reference: 40 CFR §63.11117(e)]

40 CFR §63.11124(a)(3) – “ If, prior to January 10, 2008, you are operating in compliance with an enforceable State, local, or tribal rule or permit that requires submerged fill as specified in §63.11117(b), you are not required to submit an Initial Notification or a Notification of Compliance Status under paragraph (a)(1) or paragraph (a)(2) of this section.”

COMPLIANCE SCHEDULE

BWI Thurgood Marshall Airport is currently in compliance with all applicable air quality regulations.

TITLE IV – ACID RAIN

Not Applicable.

TITLE VI – OZONE DEPLETING SUBSTANCES

BWI Thurgood Marshall Airport is currently in compliance with 40 CFR 82, Subpart F Recycling and Emissions Reduction Title VI requirements.

SECTION 112(r) – ACCIDENTAL RELEASE

BWI Thurgood Marshall Airport is not subject to the requirements of Section 112(r).

PERMIT SHIELD

The BWI Thurgood Marshall Airport facility requested that a permit shield be expressly included in the Permittee’s Part 70 permit. Permit shields are granted on an emission unit by emission unit basis. If an emission unit is covered by a permit shield, a permit shield statement will follow the emission unit table in Section IV - Plant Specific Conditions of the permit. In this case, a permit shield was granted for each emission unit covered by the permit.

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INSIGNIFICANT ACTIVITIES

This section provides a list of insignificant emissions units that were reported in the Title V permit application. The applicable Clean Air Act requirements, if any, are listed below the insignificant activity.

- (1) No. 17 Fuel burning equipment using gaseous fuels or no. 1 or no. 2 fuel oil, and having a heat input less than 1,000,000 Btu (1.06 gigajoules) per hour;

[For Areas III and IV]

The affected fuel burning units are subject to the following requirements:

COMAR 26.11.09.05A(2), which establishes that the Permittee may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers.

Exceptions: COMAR 26.11.09.05A(2) does not apply to emissions during load changing, soot blowing, start-up, or adjustments or occasional cleaning of control equipment if:

- (a) The visible emissions are not greater than 40 percent opacity; and
- (b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period.

[For Distillate Fuel Oil]

COMAR 26.11.09.07A(2)(b), which establishes that the Permittee may not burn, sell, or make available for sale any distillate fuel with a sulfur content by weight in excess of 0.3 percent.

- (2) No. 37 Stationary internal combustion engines with an output less than 500 brake horsepower (373 kilowatts) and which are not used to generate electricity for sale or for peak or load shaving;

The specify affected units are subject to the following requirements:

- (A) COMAR 26.11.09.05E(2), Emissions During Idle Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.
- (B) COMAR 26.11.09.05E(3), Emissions During Operating Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.
- (C) Exceptions:

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- (i) COMAR 26.11.09.05E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.
 - (ii) COMAR 26.11.09.05E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:
 - (a) Engines that are idled continuously when not in service: 30 minutes.
 - (b) all other engines: 15 minutes.
 - (iii) COMAR 26.11.09.05E(2) & (3) do not apply while maintenance, repair or testing is being performed by qualified mechanics.
- (3) Space heaters utilizing direct heat transfer and used solely for comfort heat;
- (4) Containers, reservoirs, or tanks used exclusively for:
- (a) No. 93 Storage of lubricating oils;
 - (b) No. 84 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;

For the following, attach additional pages as necessary:

- (5) any other emissions unit at the facility which is not subject to an applicable requirement of the Clean Air Act (list and describe):
- No. 3 Parts Washers
- No. 1 BWI Training Fires (EU-08)

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STATE ONLY ENFORCEABLE REQUIREMENTS

This section of the permit contains state-only enforceable requirements. The requirements in this section will not be enforced by the U.S. Environmental Protection Agency. The requirements in this section are not subject to COMAR 26.11.03 10 - Public Petitions for Review to EPA Regarding Part 70 Permits.

The Permittee is subject to the following State-only enforceable requirements:

1. Applicable Regulations:

- (a) COMAR 26.11.06.08 - Nuisance. "An installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be construed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution."
- (b) COMAR 26.11.06.09 – Odors. "A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that nuisance or air pollution is created."

2. Record Keeping and Reporting:

The Permittee shall submit to the Department, by April 1 of each year during the term of this permit, a written certification of the results of an analysis of emissions of toxic air pollutants from the Permittee's facility during the previous calendar year. The analysis shall include either:

- (a) a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or
- (b) a revised compliance demonstration, developed in accordance with requirements included under COMAR 26.11.15 & 16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.

DRAFT PERMIT

Governor
Wes Moore

Secretary
Serena McIlwain

Air and Radiation Administration
1800 Washington Boulevard, Suite 720
Baltimore, MD 21230

Construction Permit

Part 70 Operating Permit

PERMIT NO.:
24-003-0208

DATE ISSUED:

PERMIT FEE:
To Be Paid in Accordance with
COMAR 26.11.02.19B

EXPIRATION DATE:
January 31, 2029

LEGAL OWNER & ADDRESS

MDOT Maryland Aviation Administration
BWI Thurgood Marshall Airport
PO Box 8766
Baltimore, MD 21240-0766

SITE

BWI Thurgood Marshall Airport
761 Elm Road
Linthicum, MD 21090

Attention: Mr. Paul Shank, P.E, CM Chief
Engineer, Facilities Development & Engineering

Anne Arundel County
AI # 23921

SOURCE DESCRIPTION

Commercial Airport

_____ This source is subject to the conditions described on the attached pages. _____

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SECTION I SOURCE IDENTIFICATION

1. DESCRIPTION OF FACILITY

Baltimore Washington International (BWI) Thurgood Marshall Airport is a medium-sized commercial airport, ranked 22nd in the United States based on passenger volume. The Standard Industrial Classification (SIC) code for the facility is 4581 – Airports, Flying Fields, and Airport Terminal Services. Occupying 3,596 acres in northern Anne Arundel County, Maryland, the facility is owned by the Maryland Department of Transportation (MDOT) and operated by the Maryland Aviation Administration (MAA). Air carriers using the facility include 36 commercial, commuter, charter, and cargo airlines engaged in an average of 688 flight operations daily. An average exceeding 68,000 passengers per day are served by a single terminal building with 4 domestic and 1 international concourse, comprising approximately 2 million square feet. Inter-modal transportation services at the site include multiple parking facilities with associated shuttle buses, an AMTRAK station, and Light-Rail stops. MAA, tenant, and contractor employees working at BWI exceed 10,000. Significant stationary sources of air pollution at BWI include fossil fuel-fired boilers at the Central Utility Plant, smaller boilers located in the Terminal Building, standby electric generators, fuel storage, and training fires.

2. FACILITY INVENTORY LIST

Emissions Unit Number	MDE Registration Number	Emissions Unit Name and Description	Date of Installation
EU-1	003-0208-5-0681	Boiler #1: One (1) Indeck natural gas/No. 2 fuel oil fired boiler rated at 55 million Btu per hour heat input producing HTHW located at the Central Utility Plant.	2003; Modified 2009
EU-2	003-0208-5-0682	Boiler #2: One (1) Indeck natural gas/No. 2 fuel oil fired boiler rated at 55 million Btu per hour heat input producing HTHW located at the Central Utility Plant.	2003; Modified 2009
EU-3	003-0208-5-0683	Boiler #3: One (1) Indeck natural gas/No. 2 fuel oil fired boiler rated at 25 million Btu per hour heat input producing HTHW located at the Central Utility Plant.	1995; Modified 2009
EU-4	003-0208-9-0916	One (1) Spectrum 500DS4 505 kW standby diesel fired emergency generator	2003

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Emissions Unit Number	MDE Registration Number	Emissions Unit Name and Description	Date of Installation
		used for electricity generation located at Pier D-Front of Terminal Building.	
EU-5	003-0208-9-0910	One (1) Caterpillar SR4 750 kW standby diesel-fired emergency generator used for electricity generation located at Daily Parking Garage.	2003
EU-6	003-0208-9-0914	One (1) Caterpillar 1207 bhp (900 kW) standby diesel fired emergency generator used for electricity generation located at Pier A.	2005
EU-7	003-0208-9-0894	Motor gasoline Storage tank (8,000-gal gas UST) located in Field Maintenance Building 116.	2005
EU-8	NA	BWI Training Fires: Use of Jet A fuel to simulate fires from burning aircraft during an emergency for training of airport fire and rescue staff.	1988
EU-10	003-0208-9-0912	One (1) Caterpillar SR4B 600 kW standby diesel fired emergency generator used for electricity generation located at International Terminal Roof.	1997
EU-11	003-0208-9-0913	One (1) Kohler 644 bhp (410 kW) standby diesel fired emergency generator used for electricity generation located at MAC Building.	2006
EU-12	003-0208-9-0909	One (1) Caterpillar SR4 600 kW standby diesel-fired emergency generator used for electricity generation located at Airfield Lighting Vault.	1996
EU-13	003-0208-9-0911	One (1) Onan 600 kW standby diesel fired emergency generator used for electricity generation located at Hourly Parking Garage.	1996
EU-14	003-0208-9-0915	One (1) Generac 671 bhp (500 kW) standby diesel-fired emergency generator used for electricity generation located at Pier A Triturator.	2005
EU-15	003-0208-9-0948	One (1) Katolight 1495 bhp (900kW) standby diesel-fired emergency generator	2008

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Emissions Unit Number	MDE Registration Number	Emissions Unit Name and Description	Date of Installation
		used for electricity generation located at International Terminal LL.	
EU-16	003-0208-9-1030	One (1) Detroit Diesel 2000 kW standby diesel-fired emergency generator used for electricity generation located at CDC.	2011
EU-17	003-0208-9-1053	One (1) Baldor 2000 kW standby diesel-fired emergency generator used for electricity generation located at Central Utility Plant.	2012
EU-18	003-0208-9-1070	One (1) MTU Onsite Energy 900-XC6DT2 900kW (1354 hp) standby diesel-fired emergency generator used for electricity generation located at aircraft gate C-2.	2013
EU-19 and EU-20	003-0208-5-0769 and 5-0770	Two (2) Hydrotherm KN-10 natural gas-fired boilers, each rated at 1.99 million Btu per hour heat input used for production of HTHW located at Concourse E.	2013
EU-23, EU-24, EU-25 and EU-26	003-0208-5-0771 through 5-0774	Four (4) Hydrotherm KN-30 natural gas-fired boilers, each rated at 3.0 million Btu per hour heat input use for production of HTHW located at Concourse B.	2013
EU-27	003-0208-5-0794	One (1) Hydrotherm KN-10 natural gas-fired boiler rated at 1.0 million Btu per hour heat input used for production of HTHW located at ARFF Building	2014
EU-28	003-0208-5-0808	One (1) Cleaver Brooks CFH-700-50-15ST natural gas-fired boiler rated at 1.969 million Btu per hour heat input used for production of HTHW located at LSC Building	2015
EU-29	003-0208-9-1109	One (1) MTU Onsite Energy 750kW standby diesel-fired emergency generator used for electricity generation located at OMU Building	2015
EU-30	003-0208-5-0831	One (1) Trane natural gas-fired heater rated at 1.65 million Btu per hour heat input used for heat located ARFF Building.	October 2006
EU-31	003-0208-4-0886	One (1) Smith No. 2 fuel oil boiler rated at 3.22 MMBtu/hr. used for heat and process steam located in Building 123.	2014

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Emissions Unit Number	MDE Registration Number	Emissions Unit Name and Description	Date of Installation
EU-32	003-0208-9-1140	Cummins Power Model DQFD {or Equivalent} Standby Emergency Generator rated @1000 kW (1341-bhp) or less, {Trailer mounted unit for use throughout facility where/when needed.	2017
EU-33 and EU-34	003-0208-5-0880 and 5-0881	Two (2) KN-30 natural gas fired boilers. Each rated at 3.00 million Btu per hour heat input used for heat.	2020

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SECTION II GENERAL CONDITIONS

1. DEFINITIONS

[COMAR 26.11.01.01] and [COMAR 26.11.02.01]

The words or terms in this Part 70 permit shall have the meanings established under COMAR 26.11.01 and .02 unless otherwise stated in this permit.

2. ACRONYMS

ARA	Air and Radiation Administration
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEM	Continuous Emissions Monitor
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COMAR	Code of Maryland Regulations
EPA	United States Environmental Protection Agency
FR	Federal Register
gr	grains
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
MDE	Maryland Department of the Environment
MVAC	Motor Vehicle Air Conditioner
NESHAPS	National Emission Standards for Hazardous Air Pollutants
NO _x	Nitrogen Oxides
NSPS	New Source Performance Standards
NSR	New Source Review
OTR	Ozone Transport Region
PM	Particulate Matter
PM10	Particulate Matter with Nominal Aerodynamic Diameter of 10 micrometers or less
ppm	parts per million
ppb	parts per billion
PSD	Prevention of Significant Deterioration
PTC	Permit to construct
PTO	Permit to operate (State)
SIC	Standard Industrial Classification

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SO ₂	Sulfur Dioxide
TAP	Toxic Air Pollutant
tpy	tons per year
VE	Visible Emissions
VOC	Volatile Organic Compounds

3. EFFECTIVE DATE

The effective date of the conditions in this Part 70 permit is the date of permit issuance, unless otherwise stated in the permit.

4. PERMIT EXPIRATION

[COMAR 26.11.03.13B(2)]

Upon expiration of this permit, the terms of the permit will automatically continue to remain in effect until a new Part 70 permit is issued for this facility provided that the Permittee has submitted a timely and complete application and has paid applicable fees under COMAR 26.11.02.16.

Otherwise, upon expiration of this permit the right of the Permittee to operate this facility is terminated.

5. PERMIT RENEWAL

[COMAR 26.11.03.02B(3)] and [COMAR 26.11.03.02E]

The Permittee shall submit to the Department a completed application for renewal of this Part 70 permit at least 12 months before the expiration of the permit. Upon submitting a completed application, the Permittee may continue to operate this facility pending final action by the Department on the renewal.

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall submit such supplementary facts or corrected information no later than 10 days after becoming aware that this occurred. The Permittee shall also provide additional information as necessary to address any requirements that become applicable to the facility after the date a completed application was submitted, but prior to the release of a draft permit. This

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information shall be submitted to the Department no later than 20 days after a new requirement has been adopted.

6. CONFIDENTIAL INFORMATION

[COMAR 26.11.02.02G]

In accordance with the provisions of the State Government Article, Sec. 10-611 et seq., Annotated Code of Maryland, all information submitted in an application shall be considered part of the public record and available for inspection and copying, unless the Permittee claims that the information is confidential when it is submitted to the Department. At the time of the request for inspection or copying, the Department will make a determination with regard to the confidentiality of the information. The Permittee, when requesting confidentiality, shall identify the information in a manner specified by the Department and, when requested by the Department, promptly provide specific reasons supporting the claim of confidentiality. Information submitted to the Department without a request that the information be deemed confidential may be made available to the public. Subject to approval of the Department, the Permittee may provide a summary of confidential information that is suitable for public review. The content of this Part 70 permit is not subject to confidential treatment.

7. PERMIT ACTIONS

[COMAR 26.11.03.06E(3)] and [COMAR 26.11.03.20(A)]

This Part 70 permit may be revoked or reopened and revised for cause. The filing of an application by the Permittee for a permit revision or renewal; or a notification of termination, planned changes or anticipated noncompliance by the facility, does not stay a term or condition of this permit.

The Department shall reopen and revise, or revoke the Permittee's Part 70 permit under the following circumstances:

- a. Additional requirements of the Clean Air Act become applicable to this facility and the remaining permit term is 3 years or more;

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- b. The Department or the EPA determines that this Part 70 permit contains a material mistake, or is based on false or inaccurate information supplied by or on behalf of the Permittee;
- c. The Department or the EPA determines that this Part 70 permit must be revised or revoked to assure compliance with applicable requirements of the Clean Air Act; or
- d. Additional requirements become applicable to an affected source under the Federal Acid Rain Program.

8. PERMIT AVAILABILITY

[COMAR 26.11.02.13G]

The Permittee shall maintain this Part 70 permit in the vicinity of the facility for which it was issued, unless it is not practical to do so, and make this permit immediately available to officials of the Department upon request.

9. REOPENING THE PART 70 PERMIT FOR CAUSE BY THE EPA

[COMAR 26.11.03.20B]

The EPA may terminate, modify, or revoke and reissue a permit for cause as prescribed in 40 CFR §70.7(g)

10. TRANSFER OF PERMIT

[COMAR 26.11.02.02E]

The Permittee shall not transfer this Part 70 permit except as provided in COMAR 26.11.03.15.

11. REVISION OF PART 70 PERMITS – GENERAL CONDITIONS

[COMAR 26.11.03.14] and [COMAR 26.11.03.06A(8)]

- a. The Permittee shall submit an application to the Department to revise this Part 70 permit when required under COMAR 26.11.03.15 -.17.

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- b. When applying for a revision to a Part 70 permit, the Permittee shall comply with the requirements of COMAR 26.11.03.02 and .03 except that the application for a revision need include only information listed that is related to the proposed change to the source and revision to the permit. This information shall be sufficient to evaluate the proposed change and to determine whether it will comply with all applicable requirements of the Clean Air Act.
- c. The Permittee may not change any provision of a compliance plan or schedule in a Part 70 permit as an administrative permit amendment or as a minor permit modification unless the change has been approved by the Department in writing.
- d. A permit revision is not required for a change that is provided for in this permit relating to approved economic incentives, marketable permits, emissions trading, and other similar programs.

12. SIGNIFICANT PART 70 OPERATING PERMIT MODIFICATIONS

[COMAR 26.11.03.17]

The Permittee may apply to the Department to make a significant modification to its Part 70 Permit as provided in COMAR 26.11.03.17 and in accordance with the following conditions:

- a. A significant modification is a revision to the federally enforceable provisions in the permit that does not qualify as an administrative permit amendment under COMAR 26.11.03.15 or a minor permit modification as defined under COMAR 26.11.03.16.
- b. This permit does not preclude the Permittee from making changes, consistent with the provisions of COMAR 26.11.03, that would make the permit or particular terms and conditions of the permit irrelevant, such as by shutting down or reducing the level of operation of a source or of an emissions unit within the source. Air pollution control equipment shall not be shut down or its level of operation reduced if doing so would violate any term of this permit.
- c. Significant permit modifications are subject to all requirements of COMAR 26.11.03 as they apply to permit issuance and renewal,

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including the requirements for applications, public participation, and review by affected states and EPA, except:

- (1) An application need include only information pertaining to the proposed change to the source and modification of this permit, including a description of the change and modification, and any new applicable requirements of the Clean Air Act that will apply if the change occurs;
 - (2) Public participation, and review by affected states and EPA, is limited to only the application and those federally enforceable terms and conditions of the Part 70 permit that are affected by the significant permit modification.
- d. As provided in COMAR 26.11.03.15B(5), an administrative permit amendment may be used to make a change that would otherwise require a significant permit modification if procedures for enhanced preconstruction review of the change are followed that satisfy the requirements of 40 CFR 70.7(d)(1)(v).
 - e. Before making a change that qualifies as a significant permit modification, the Permittee shall obtain all permits-to-construct and approvals required by COMAR 26.11.02.
 - f. The Permittee shall not make a significant permit modification that results in a violation of any applicable requirement of the Clean Air Act.
 - g. The permit shield in COMAR 26.11.03.23 applies to a final significant permit modification that has been issued by the Department, to the extent applicable under COMAR 26.11.03.23.

13. MINOR PERMIT MODIFICATIONS

[COMAR 26.11.03.16]

The Permittee may apply to the Department to make a minor modification to the federally enforceable provisions of this Part 70 permit as provided in COMAR 26.11.03.16 and in accordance with the following conditions:

- a. A minor permit modification is a Part 70 permit revision that:

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- (1) Does not result in a violation of any applicable requirement of the Clean Air Act;
- (2) Does not significantly revise existing federally enforceable monitoring, including test methods, reporting, record keeping, or compliance certification requirements except by:
 - (a) Adding new requirements,
 - (b) Eliminating the requirements if they are rendered meaningless because the emissions to which the requirements apply will no longer occur, or
 - (c) Changing from one approved test method for a pollutant and source category to another;
- (3) Does not require or modify a:
 - (a) Case-by-case determination of a federally enforceable emissions standard,
 - (b) Source specific determination for temporary sources of ambient impacts, or
 - (c) Visibility or increment analysis;
- (4) Does not seek to establish or modify a federally enforceable permit term or condition for which there is no corresponding underlying applicable requirement of the Clean Air Act, but that the Permittee has assumed to avoid an applicable requirement to which the source would otherwise be subject, including:
 - (a) A federally enforceable emissions standard applied to the source pursuant to COMAR 26.11.02.03 to avoid classification as a Title I modification; and
 - (b) An alternative emissions standard applied to an emissions unit pursuant to regulations promulgated under Section 112(i)(5) of the Clean Air Act
- (5) Is not a Title I modification; and

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- (6) Is not required under COMAR 26.11.03.17 to be processed as a significant modification to this Part 70 permit.

b. Application for a Minor Permit Modification

The Permittee shall submit to the Department an application for a minor permit modification that satisfies the requirements of COMAR 26.11.03.03 which includes the following:

- (1) A description of the proposed change, the emissions resulting from the change, and any new applicable requirements that will apply if the change is made;
- (2) The proposed minor permit modification;
- (3) Certification by a responsible official, in accordance with COMAR 26.11.02.02F, that:
 - (a) The proposed change meets the criteria for a minor permit modification, and
 - (b) The Permittee has obtained or applied for all required permits-to-construct required by COMAR 26.11.03.16 with respect to the proposed change;
- (4) Completed forms for the Department to use to notify the EPA and affected states, as required by COMAR 26.11.03.07-.12.

c. Permittee's Ability to Make Change

- (1) For changes proposed as minor permit modifications to this permit that will require the applicant to obtain a permit to construct, the permit to construct must be issued prior to the new change.
- (2) During the period of time after the Permittee applies for a minor modification but before the Department acts in accordance with COMAR 26.11.03.16F(2):
 - (a) The Permittee shall comply with applicable requirements of the Clean Air Act related to the change and the permit terms and conditions described in the application for the minor modification.

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- (b) The Permittee is not required to comply with the terms and conditions in the permit it seeks to modify. If the Permittee fails to comply with the terms and conditions in the application during this time, the terms and conditions of both this permit and the application for modification may be enforced against it.
- d. The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.16 is not within the scope of this regulation.
- e. Minor permit modification procedures may be used for Part 70 permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, but only to the extent that the minor permit modification procedures are explicitly provided for in regulations approved by the EPA as part of the Maryland SIP or in other applicable requirements of the Clean Air Act.

14. ADMINISTRATIVE PART 70 OPERATING PERMIT AMENDMENTS

[COMAR 26.11.03.15]

The Permittee may apply to the department to make an administrative permit amendment as provided in COMAR 26.11.03.15 and in accordance with the following conditions:

- a. An application for an administrative permit amendment shall:
 - (1) Be in writing;
 - (2) Include a statement certified by a responsible official that the proposed amendment meets the criteria in COMAR 26.11.03.15 for an administrative permit amendment, and
 - (3) Identify those provisions of this part 70 permit for which the amendment is requested, including the basis for the request.
- b. An administrative permit amendment:
 - (1) Is a correction of a typographical error;

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- (2) Identifies a change in the name, address, or phone number of a person identified in this permit, or a similar administrative change involving the Permittee or other matters which are not directly related to the control of air pollution;
 - (3) requires more frequent monitoring or reporting by the Permittee;
 - (4) Allows for a change in ownership or operational control of a source for which the Department determines that no other revision to the permit is necessary and is documented as per COMAR 26.11.03.15B(4);
 - (5) Incorporates into this permit the requirements from preconstruction review permits or approvals issued by the Department in accordance with COMAR 26.11.03.15B(5), but only if it satisfies 40 CFR 70.7(d)(1)(v);
 - (6) Incorporates any other type of change, as approved by the EPA, which is similar to those in COMAR 26.11.03.15B(1)—(4);
 - (7) Notwithstanding COMAR 26.11.03.15B(1)—(6), all modifications to acid rain control provisions included in this Part 70 permit are governed by applicable requirements promulgated under Title IV of the Clean Air Act; or
 - (8) Incorporates any change to a term or condition specified as State-only enforceable if the Permittee has obtained all necessary permits-to-construct and approvals that apply to the change.
- c. The Permittee may make the change addressed in the application for an administrative amendment upon receipt by the Department of the application if all permits-to-construct or approvals otherwise required by COMAR 26.11.02 prior to making the change have first been obtained from the Department.
- d. The permit shield in COMAR 26.11.03.23 applies to administrative permit amendments made under Section B(5) of COMAR 26.11.03.15 , but only after the Department takes final action to revise the permit.

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- e. The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.15 is not within the scope of this regulation.

15. OFF-PERMIT CHANGES TO THIS SOURCE

[COMAR 26.11.03.19]

The Permittee may make off-permit changes to this facility as provided in COMAR 26.11.03.19 and in accordance with the following conditions:

- a. The Permittee may make a change to this permitted facility that is not addressed or prohibited by the federally enforceable conditions of this Part 70 permit without obtaining a Part 70 permit revision if:
 - (1) The Permittee has obtained all permits and approvals required by COMAR 26.11.02 and .03;
 - (2) The change is not subject to any requirements under Title IV of the Clean Air Act;
 - (3) The change is not a Title I modification; and
 - (4) The change does not violate an applicable requirement of the Clean Air Act or a federally enforceable term or condition of the permit.
- b. For a change that qualifies under COMAR 26.11.03.19, the Permittee shall provide contemporaneous written notice to the Department and the EPA, except for a change to an emissions unit or activity that is exempt from the Part 70 permit application, as provided in COMAR 26.11.03.04. This written notice shall describe the change, including the date it was made, any change in emissions, including the pollutants emitted, and any new applicable requirements of the Clean Air Act that apply as a result of the change.
- c. Upon satisfying the requirements of COMAR 26.11.03.19, the Permittee may make the proposed change.
- d. The Permittee shall keep a record describing:

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- (1) Changes made at the facility that result in emissions of a regulated air pollutant subject to an applicable requirement of the Clean Air Act , but not otherwise regulated under this permit; and
 - (2) The emissions resulting from those changes.
- e. Changes that qualify under COMAR 26.11.03.19 are not subject to the requirements for Part 70 revisions.
 - f. The Permittee shall include each off-permit change under COMAR 26.11.03.19 in the application for renewal of the part 70 permit.
 - g. The permit shield in COMAR 26.11.03.23 does not apply to off-permit changes made under COMAR 26.11.03.19.
 - h. The Permittee is subject to enforcement action if it is determined that an off-permit change made under COMAR 26.11.03.19 is not within the scope of this regulation.

16. ON-PERMIT CHANGES TO SOURCES

[COMAR 26.11.03.18]

The Permittee may make on-permit changes that are allowed under Section 502(b)(10) of the Clean Air Act as provided in COMAR 26.11.03.18 and in accordance with the following conditions:

- a. The Permittee may make a change to this facility without obtaining a revision to this Part 70 permit if:
 - (1) The change is not a Title I modification;
 - (2) The change does not result in emissions in excess of those expressly allowed under the federally enforceable provisions of the Part 70 permit for the permitted facility or for an emissions unit within the facility, whether expressed as a rate of emissions or in terms of total emissions;
 - (3) The Permittee has obtained all permits and approvals required by COMAR 26.11.02 and .03;

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- (4) The change does not violate an applicable requirement of the Clean Air Act;
 - (5) The change does not violate a federally enforceable permit term or condition related to monitoring, including test methods, record keeping, reporting, or compliance certification requirements;
 - (6) The change does not violate a federally enforceable permit term or condition limiting hours of operation, work practices, fuel usage, raw material usage, or production levels if the term or condition has been established to limit emissions allowable under this permit;
 - (7) If applicable, the change does not modify a federally enforceable provision of a compliance plan or schedule in this Part 70 permit unless the Department has approved the change in writing; and
 - (8) This permit does not expressly prohibit the change under COMAR 26.11.03.18.
- b. The Permittee shall notify the Department and the EPA in writing of a proposed on-permit change under COMAR 26.11.03.18 not later than 7 days before the change is made. The written information shall include the following information:
- (1) A description of the proposed change;
 - (2) The date on which the change is proposed to be made;
 - (3) Any change in emissions resulting from the change, including the pollutants emitted;
 - (4) Any new applicable requirement of the Clean Air Act; and
 - (5) Any permit term or condition that would no longer apply.
- c. The responsible official of this facility shall certify in accordance with COMAR 26.11.02.02F that the proposed change meets the criteria for the use of on-permit changes under COMAR 26.11.03.18.
- d. The Permittee shall attach a copy of each notice required by condition b. above to this Part 70 permit.

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- e. On-permit changes that qualify under COMAR 26.11.03.18 are not subject to the requirements for part 70 permit revisions.
- f. Upon satisfying the requirements under COMAR 26.11.03.18, the Permittee may make the proposed change.
- g. The permit shield in COMAR 26.11.03.23 does not apply to on-permit changes under COMAR 26.11.03.18.
- h. The Permittee is subject to enforcement action if it is determined that an on-permit change made under COMAR 26.11.03.18 is not within the scope of the regulation or violates any requirement of the State air pollution control law.

17. FEE PAYMENT

[COMAR 26.11.02.16A(2) & (5)(b)]

- a. The fee for this Part 70 permit is as prescribed in Regulation .19 of COMAR 26.11.02.
- b. The fee is due on and shall be paid on or before each 12-month anniversary date of the permit.
- c. Failure to pay the annual permit fee constitutes cause for revocation of the permit by the Department.

18. REQUIREMENTS FOR PERMITS-TO-CONSTRUCT AND APPROVALS

[COMAR 26.11.02.09.]

The Permittee may not construct or modify or cause to be constructed or modified any of the following sources without first obtaining, and having in current effect, the specified permits-to-construct, and approvals:

- a. New Source Review source, as defined in COMAR 26.11.01.01, approval required, except for generating stations constructed by electric companies;

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- b. Prevention of Significant Deterioration source, as defined in COMAR 26.11.01.01, approval required, except for generating stations constructed by electric companies;
- c. New Source Performance Standard source, as defined in COMAR 26.11.01.01, permit to construct required, except for generating stations constructed by electric companies;
- d. National Emission Standards for Hazardous Air Pollutants source, as defined in COMAR 26.11.01.01, permit to construct required, except for generating stations constructed by electric companies;
- e. A stationary source of lead that discharges one ton per year or more of lead or lead compounds measured as elemental lead, permit to construct required, except for generating stations constructed by electric companies;
- f. All stationary sources of air pollution, including installations and air pollution control equipment, except as listed in COMAR 26.11.02.10, permit to construct required;
- g. In the event of a conflict between the applicability of (a.— e.) above and an exemption listed in COMAR 26.11.02.10, the provision that requires a permit applies.
- h. Approval of a PSD or NSR source by the Department does not relieve the Permittee obtaining an approval from also obtaining all permits-to-construct required by (c.— g.) above.

19. CONSOLIDATION OF PROCEDURES FOR PUBLIC PARTICIPATION

[COMAR 26.11.02.11C] and [COMAR 26.11.03.01K]

The Permittee may request the Department to authorize special procedures for the Permittee to apply simultaneously, to the extent possible, for a permit to construct and a revision to this permit.

These procedures may provide for combined public notices, informational meetings, and public hearings for both permits but shall not adversely affect the rights of a person, including EPA and affected states, to obtain information about the application for a permit, to comment on an application, or to challenge a permit that is issued.

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These procedures shall not alter any existing permit procedures or time frames.

20. PROPERTY RIGHTS

[COMAR 26.11.03.06E(4)]

This Part 70 permit does not convey any property rights of any sort, or any exclusive privileges.

21. SEVERABILITY

[COMAR 26.11.03.06A(5)]

If any portion of this Part 70 permit is challenged, or any term or condition deemed unenforceable, the remainder of the requirements of the permit continues to be valid.

22. INSPECTION AND ENTRY

[COMAR 26.11.03.06G(3)]

The Permittee shall allow employees and authorized representatives of the Department, the EPA, and local environmental health agencies, upon presentation of credentials or other documents as may be required by law, to:

- a. Enter at a reasonable time without delay and without prior notification the Permittee's property where a Part 70 source is located, emissions-related activity is conducted, or records required by this permit are kept;
- b. Have access to and make copies of records required by the permit;
- c. Inspect all emissions units within the facility subject to the permit and all related monitoring systems, air pollution control equipment, and practices or operations regulated or required by the permit; and

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- d. Sample or monitor any substances or parameters at or related to the emissions units at the facility for the purpose of determining compliance with the permit.

23. DUTY TO PROVIDE INFORMATION

[COMAR 26.11.03.06E(5)]

The Permittee shall furnish to the Department, within a reasonable time specified by the Department, information requested in writing by the Department in order to determine whether the Permittee is in compliance with the federally enforceable conditions of this Part 70 permit, or whether cause exists for revising or revoking the permit. Upon request, the Permittee shall also furnish to the Department records required to be kept under the permit.

For information claimed by the Permittee to be confidential and therefore potentially not discloseable to the public, the Department may require the Permittee to provide a copy of the records directly to the EPA along with a claim of confidentiality.

The Permittee shall also furnish to the Department, within a reasonable time specified by the Department, information or records requested in writing by the Department in order to determine if the Permittee is in compliance with the State-only enforceable conditions of this permit.

24. COMPLIANCE REQUIREMENTS

[COMAR 26.11.03.06E(1)] and [COMAR 26.11.03.06A(11)] and [COMAR 26.11.02.05]

The Permittee shall comply with the conditions of this Part 70 permit. Noncompliance with the permit constitutes a violation of the Clean Air Act, and/or the Environment Article Title 2 of the Annotated Code of Maryland and may subject the Permittee to:

- a. Enforcement action,
- b. Permit revocation or revision,
- c. Denial of the renewal of a Part 70 permit, or

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- d. Any combination of these actions.

The conditions in this Part 70 permit are enforceable by EPA and citizens under the Clean Air Act except for the State-only enforceable conditions.

Under Environment Article Section 2-609, Annotated Code of Maryland, the Department may seek immediate injunctive relief against a person who violates this permit in such a manner as to cause a threat to human health or the environment.

25. CREDIBLE EVIDENCE

Nothing in this permit shall be interpreted to preclude the use of credible evidence to demonstrate noncompliance with any term of this permit.

26. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

[COMAR 26.11.03.06E(2)]

The need to halt or reduce activity in order to comply with the conditions of this permit may not be used as a defense in an enforcement action.

27. CIRCUMVENTION

[COMAR 26.11.01.06]

The Permittee may not install or use any article, machine, equipment or other contrivance, the use of which, without resulting in a reduction in the total weight of emissions, conceals or dilutes emissions which would otherwise constitute a violation of any applicable air pollution control regulation.

28. PERMIT SHIELD

[COMAR 26.11.03.23]

A permit shield as described in COMAR 26.11.03.23 shall apply only to terms and conditions in this Part 70 permit that have been specifically

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identified as covered by the permit shield. Neither this permit nor COMAR 26.11.03.23 alters the following:

- a. The emergency order provisions in Section 303 of the Clean Air Act, including the authority of EPA under that section;
- b. The liability of the Permittee for a violation of an applicable requirement of the Clean Air Act before or when this permit is issued or for a violation that continues after issuance;
- c. The requirements of the Acid Rain Program, consistent with Section 408(a) of the Clean Air Act;
- d. The ability of the Department or EPA to obtain information from a source pursuant to Maryland law and Section 114 of the Clean Air Act; or
- e. The authority of the Department to enforce an applicable requirement of the State air pollution control law that is not an applicable requirement of the Clean Air Act.

29. ALTERNATE OPERATING SCENARIOS

[COMAR 26.11.03.06A(9)]

For all alternate operating scenarios approved by the Department and contained within this permit, the Permittee, while changing from one approved scenario to another, shall contemporaneously record in a log maintained at the facility each scenario under which the emissions unit is operating and the date and time the scenario started and ended.

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SECTION III PLANT WIDE CONDITIONS

1. PARTICULATE MATTER FROM CONSTRUCTION AND DEMOLITION

[COMAR 26.11.06.03D]

The Permittee shall not cause or permit any building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne.

2. OPEN BURNING

[COMAR 26.11.07]

Except as provided in COMAR 26.11.07.04, the Permittee shall not cause or permit an open fire from June 1 through August 31 of any calendar year. Prior to any open burning, the Permittee shall request and receive approval from the Department.

3. AIR POLLUTION EPISODE

[COMAR 26.11.05.04]

When requested by the Department, the Permittee shall prepare in writing standby emissions reduction plans, consistent with good industrial practice and safe operating procedures, for reducing emissions creating air pollution during periods of Alert, Warning, and Emergency of an air pollution episode.

4. REPORT OF EXCESS EMISSIONS AND DEVIATIONS

[COMAR 26.11.01.07] and [COMAR 26.11.03.06C(7)]

The Permittee shall comply with the following conditions for occurrences of excess emissions and deviations from requirements of this permit, including those in Section VI – State-only Enforceable Conditions:

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- a. Report any deviation from permit requirements that could endanger human health or the environment, by orally notifying the Department immediately upon discovery of the deviation;
- b. Promptly report all occurrences of excess emissions that are expected to last for one hour or longer by orally notifying the Department of the onset and termination of the occurrence;
- c. When requested by the Department the Permittee shall report all deviations from permit conditions, including those attributed to malfunctions as defined in COMAR 26.11.01.07A, within 5 days of the request by submitting a written description of the deviation to the Department. The written report shall include the cause, dates and times of the onset and termination of the deviation, and an account of all actions planned or taken to reduce, eliminate, and prevent recurrence of the deviation;
- d. The Permittee shall submit to the Department semi-annual monitoring reports that confirm that all required monitoring was performed, and that provide accounts of all deviations from permit requirements that occurred during the reporting periods. Reporting periods shall be January 1 through June 30 and July 1 through December 31, and reports shall be submitted within 30 days of the end of each reporting period. Each account of deviation shall include a description of the deviation, the dates and times of onset and termination, identification of the person who observed or discovered the deviation, causes and corrective actions taken, and actions taken to prevent recurrence. If no deviations from permit conditions occurred during a reporting period, the Permittee shall submit a written report that so states.
- e. When requested by the Department, the Permittee shall submit a written report to the Department within 10 days of receiving the request concerning an occurrence of excess emissions. The report shall contain the information required in COMAR 26.11.01.07D(2).

5. ACCIDENTAL RELEASE PROVISIONS

[COMAR 26.11.03.03B(23)] and [40 CFR 68]

Should the Permittee become subject to 40 CFR 68 during the term of this permit, the Permittee shall submit risk management plans by the date

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specified in 40 CFR 68.150 and shall certify compliance with the requirements of 40 CFR 68 as part of the annual compliance certification as required by 40 CFR 70.

The Permittee shall initiate a permit revision or reopening according to the procedures of 40 CFR 70.7 to incorporate appropriate permit conditions into the Permittee's Part 70 permit.

6. GENERAL TESTING REQUIREMENTS

[COMAR 26.11.01.04]

The Department may require the Permittee to conduct, or have conducted, testing to determine compliance with this Part 70 permit. The Department, at its option, may witness or conduct these tests. This testing shall be done at a reasonable time, and all information gathered during a testing operation shall be provided to the Department.

7. EMISSIONS TEST METHODS

[COMAR 26.11.01.04]

Compliance with the emissions standards and limitations in this Part 70 permit shall be determined by the test methods designated and described below or other test methods submitted to and approved by the Department.

Reference documents of the test methods approved by the Department include the following:

- a. 40 CFR 60, appendix A
- b. 40 CFR 51, appendix M
- c. The Department's Technical Memorandum 91-01 "Test Methods and Equipment Specifications for Stationary Sources", (January 1991), as amended through Supplement 3, (October 1, 1997)

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8. EMISSIONS CERTIFICATION REPORT

**[COMAR 26.11.01.05-1] and [COMAR 26.11.02.19C] and
[COMAR 26.11.02.19D]**

The Permittee shall certify actual annual emissions of regulated pollutants from the facility on a calendar year basis.

- a. The certification shall be on forms obtained from the Department and submitted to the Department not later than April 1 of the year following the year for which the certification is required;
- b. The individual making the certification shall certify that the information is accurate to the individual's best knowledge. The individual shall be:
 - (1) Familiar with each source for which the certifications forms are submitted, and
 - (2) Responsible for the accuracy of the emissions information;
- c. The Permittee shall maintain records necessary to support the emissions certification including the following information if applicable:
 - (1) The total amount of actual emissions of each regulated pollutant and the total of all regulated pollutants;
 - (2) An explanation of the methods used to quantify the emissions and the operating schedules and production data that were used to determine emissions, including significant assumptions made;
 - (3) Amounts, types, and analyses of all fuels used;
 - (4) Emissions data from continuous emissions monitors that are required by this permit, including monitor calibration and malfunction information;
 - (5) Identification, description, and use records of all air pollution control equipment and compliance monitoring equipment including:

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- (a) Significant maintenance performed,
 - (b) Malfunctions and downtime, and
 - (c) Episodes of reduced efficiency of all equipment;
- (6) Limitations on source operation or any work practice standards that significantly affect emissions; and
- (7) Other relevant information as required by the Department.

9. COMPLIANCE CERTIFICATION REPORT

[COMAR 26.11.03.06G(6) and (7)]

The Permittee shall submit to the Department and EPA Region III a report certifying compliance with each term of this Part 70 permit including each applicable standard, emissions limitation, and work practice for the previous calendar year by April 1 of each year.

- a. The compliance certification shall include:
 - (1) The identification of each term or condition of this permit which is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether the compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of each source, currently and over the reporting period; and
 - (5) Any other information required to be reported to the Department that is necessary to determine the compliance status of the Permittee with this permit.
- b. The Permittee shall submit the compliance certification reports to the Department and EPA simultaneously.

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10. CERTIFICATION BY RESPONSIBLE OFFICIAL

[COMAR 26.11.02.02F]

All application forms, reports, and compliance certifications submitted pursuant to this permit shall be certified by a responsible official as to truth, accuracy, and completeness. The Permittee shall expeditiously notify the Department of an appointment of a new responsible official.

The certification shall be in the following form:

“I certify under penalty of law that this document and all attachments 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 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.”

11. SAMPLING AND EMISSIONS TESTING RECORD KEEPING

[COMAR 26.11.03.06C(5)]

The Permittee shall gather and retain the following information when sampling and testing for compliance demonstrations:

- a. The location as specified in this permit, and the date and time that samples and measurements are taken;
- b. All pertinent operating conditions existing at the time that samples and measurements are taken;
- c. The date that each analysis of a sample or emissions test is performed and the name of the person taking the sample or performing the emissions test;
- d. The identity of the Permittee, individual, or other entity that performed the analysis;
- e. The analytical techniques and methods used; and

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- f. The results of each analysis.

12. GENERAL RECORDKEEPING

[COMAR 26.11.03.06C(6)]

The Permittee shall retain records of all monitoring data and information that support the compliance certification for a period of five (5) years from the date that the monitoring, sample measurement, application, report or emissions test was completed or submitted to the Department.

These records and support information shall include:

- a. All calibration and maintenance records;
- b. All original data collected from continuous monitoring instrumentation;
- c. Records which support the annual emissions certification; and
- d. Copies of all reports required by this permit.

13. GENERAL CONFORMITY

[COMAR 26.11.26.09]

The Permittee shall comply with the general conformity requirements of 40 CFR 93, Subpart B and COMAR 26.11.26.09.

14. ASBESTOS PROVISIONS

[40 CFR 61, Subpart M]

The Permittee shall comply with 40 CFR 61, Subpart M when conducting any renovation or demolition activities at the facility.

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15. OZONE DEPLETING REGULATIONS

[40 CFR 82, Subpart F]

The Permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for MVACs in subpart B:

- a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the prohibitions and required practices pursuant to 40 CFR 82.154 and 82.156.
- b. Equipment used during the maintenance, service, repair or disposal of appliances shall comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- c. Persons performing maintenance, service, repairs or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
- d. Persons disposing of small appliances, MVACS, and MVAC-like appliances as defined in 40 CFR 82.152, shall comply with record keeping requirements pursuant to 40 CFR 82.155.
- e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
- f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

16. ACID RAIN PERMIT

Not applicable

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SECTION IV PLANT SPECIFIC CONDITIONS

This section provides tables that include the emissions standards, emissions limitations, and work practices applicable to each emissions unit located at this facility. The Permittee shall comply with all applicable emissions standards, emissions limitations and work practices included herein.

The tables also include testing, monitoring, record keeping and reporting requirements specific to each emissions unit. In addition to the requirements included here in **Section IV**, the Permittee is also subject to the general testing, monitoring, record keeping and reporting requirements included in **Section III – Plant Wide Conditions** of this permit.

Unless otherwise provided in the specific requirements for an emissions unit, the Permittee shall maintain at the facility for at least five (5) years, and shall make available to the Department upon request, all records that the Permittee is required under this section to establish. **[Reference: COMAR 26.11.03.06C(5)(g)]**

Table IV – 1	
1.0	<p><u>Emissions Unit Number(s): EU-1 thru EU-3</u> <u>Boilers > 10 million Btu per hour</u></p> <p>EU-1 – Boiler #1: One (1) Indeck natural gas/No. 2 fuel oil fired boiler rated at 55 million Btu per hour heat input. [003-0208-5-0681] EU-2 - Boiler #2: One (1) Indeck natural gas/No. 2 fuel oil fired boiler rated at 55 million Btu per hour heat input. [003-0208-5-0682] EU-3 - Boiler #3: One (1) Indeck natural gas/No. 2 fuel oil fired boiler rated at 25 million Btu per hour heat input. [003-0208-5-0683]</p> <p>These boilers are located in the Central Utility Plant.</p>
1.1	<p><u>Applicable Standards/Limits:</u></p> <p>A. <u>Control of Visible Emissions</u> COMAR 26.11.09.05A(2) – Fuel Burning Equipment “Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity.”</p>

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Table IV – 1

COMAR 26.11.09.05A(3) - Exceptions. “Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if:
 (a) The visible emissions are not greater than 40 percent opacity; and
 (b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period.”

B. Control of Particulate Matter Emissions

Note: The PM requirements in this table only apply to **EU-1 and EU-2.**

40 CFR §60.43c – Standard for particulate matter (PM)

“(c) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, wood, or **oil** and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than **20 percent opacity (6-minute average)**, except for one 6-minute period per hour of not more than 27 percent opacity.”

“(d) The PM and opacity standards under this section apply at all times, except during periods of startup, shutdown, or malfunction.”

Please note: Compliance with the “No Visible Emission” requirements of COMAR 26.11.09.05A(2) will be used to show compliance with 40 CFR §60.43c(c) and (d).

40 CFR §60.43c(e) – Standard for particulate matter (PM)

“(1) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts coal, **oil**, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels and has a heat input capacity of 8.7 MW (30 MMBtu/hr.) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 13 ng/J (0.030 lb./MMBtu) heat input, except as provided in paragraphs (e)(2), (e)(3), and (e)(4) of this section.”

“(4) An owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that contains no more than **0.50 weight percent sulfur** or a mixture of 0.50 weight percent sulfur oil with other fuels not subject to a PM standard under §60.43c and not using a post-combustion

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technology (except a wet scrubber) to reduce PM or SO₂ emissions is not subject to the PM limit in this section.”

C. Control of Sulfur Oxides

COMAR 26.11.09.07A(2) - Sulfur Content Limitations for Fuel.

“A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV: (b) Distillate fuel oils, 0.3 percent.”

40 CFR §60.42c - Standard for sulfur dioxide (SO₂)

“(d) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of 215 ng/J (0.50 lb/MMBtu) heat input; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The percent reduction requirements are not applicable to affected facilities under this paragraph.”

“(h) For affected facilities listed under paragraphs (h)(1), (2), (3), or (4) of this section, compliance with the emission limits or fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier, as described under §60.48c(f), as applicable.

(1) Distillate oil-fired affected facilities with heat input capacities between 2.9 and 29 MW (10 and 100 MMBtu/hr.)”

“(i) The SO₂ emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.”

Note: Compliance with the “Sulfur Content Limitations for Fuel” requirement of COMAR 26.11.09.07A(2) will be used to show compliance with 40 CFR §60.42c(d).

D. Control of Nitrogen Oxides

COMAR 26.11.09.08B(5) - Operator Training.

(a) For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.

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	<p>(b) The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department.”</p> <p>COMAR 26.11.09.08E - <u>Requirements for Fuel-Burning Equipment with a Rated Heat Input Capacity of 100 MMBtu Per Hour or Less.</u> “A person who owns or operates fuel-burning equipment with a rated heat input capacity of 100 MMBtu per hour or less shall:</p> <ol style="list-style-type: none"> (1) Submit to the Department an identification of each affected installation, the rated heat input capacity of each installation, and the type of fuel burned in each; (2) Perform a combustion analysis for each installation at least once each year and optimize combustion based on the analysis; (3) Maintain the results of the combustion analysis at the site for at least 2 years and make this data available to the Department and the EPA upon request; (4) Once every 3 years, require each operator of the installation to attend operator training programs on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and (5) Prepare and maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request.” <p>E. <u>Operational Limitation:</u> In order to exempt the three (3) boilers (2- 55 MMBtu/hr. and 1-25 MMBtu/hr.) from the requirements of COMAR 26.11.17 – Nonattainment Provisions for Major New Sources and Modifications, and prevent the boilers from operating as a “Major Modification” with a “significant” net emissions increase of NO_x as defined under COMAR 26.11.17.01B, the Permittee shall limit the NO_x emissions from the three (3) boilers to less than 25 tons per year, for any 12-month consecutive period. [Reference: PTC 003-0208-5-0681, 5-0682, & 5-0683 issued January 13, 2009]</p> <p>See Table 2a-MACT for additional requirements.</p>
1.2	<p><u>Testing Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u> See Monitoring Requirements.</p>

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	<p>B. <u>Control of Particulate Matter Emissions</u> Note: The PM requirements in this table only apply to EU-1 and EU-2.</p> <p>40 CFR §60.45c(d) – <u>Compliance and performance test methods and procedures for particulate matter.</u> “The owner or operator of an affected facility seeking to demonstrate compliance under §60.43c(e)(4) shall follow the applicable procedures under §60.48c(f).”</p> <p>C. <u>Control of Sulfur Oxides</u> 40 CFR §60.44c(h) - <u>Compliance and performance test methods and procedures for sulfur dioxide.</u> “For affected facilities subject to §60.42c(h)(1), (2), or (3) where the owner or operator seeks to demonstrate compliance with the SO₂ standards based on fuel supplier certification, the performance test shall consist of the certification, the certification from the fuel supplier, as described under §60.48c(f), as applicable.”</p> <p>D. <u>Control of Nitrogen Oxides:</u> The Permittee shall perform a stack test on the three (3) Indeck boilers both on oil and natural gas, once during the term of this permit. The Permittee shall submit a test protocol to the Department for approval at least 30 days before the scheduled test date. The Permittee shall submit all test results and supporting data from the stack tests to the Department within 45 days after the stack tests are conducted. [Reference: COMAR 26.11.03.06C].</p> <p>The Permittee shall Perform a combustion analysis for each installation at least once each calendar year and optimize combustion based on the analysis. [Reference: COMAR 26.11.09.08E(2)]</p> <p>E. <u>Operational Limitation:</u> See Record Keeping Requirements.</p>
1.3	<p><u>Monitoring Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u> The Permittee shall: (1) Properly operate and maintain the boilers in a manner to prevent visible emissions; and</p>

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- (2) Verify no visible emissions when burning No. 2 fuel oil. The Permittee shall perform a visual observation for a 6-minute period once for each 168 hours that the boiler burns oil or at a minimum of once per year.

The Permittee shall perform the following if emissions are visible:

- (1) Inspect combustion control system and boiler operations,
- (2) Perform all necessary adjustments and/or repairs to the boiler within 48 hours, so that visible emissions are eliminated;
- (3) Document in writing the results of the inspections, adjustments and/or repairs to the boiler; and
- (4) After 48 hours, if the required adjustments and/or repairs have not eliminated the visible emissions, perform Method 9 observations once daily for 18 minutes until corrective actions have eliminated the visible emissions.

[Reference: COMAR 26.11.03.06C]

B. Control of Particulate Matter Emissions

Note: The PM requirements in this table only apply to **EU-1 and EU-2**.

40 CFR §60.47c(c) – Emission monitoring for particulate matter.

“Affected facilities that burn only distillate oil that contains no more than 0.5 weight percent sulfur and/or liquid or gaseous fuels with potential sulfur dioxide emission rates of 26 ng/J (0.06 lb./MMBtu) heat input or less and that do not use a post-combustion technology to reduce SO₂ or PM emissions and that are subject to an opacity standard in §60.43c(c) are not required to operate a COMS if they follow the applicable procedures under §60.48c(f).”

C. Control of Sulfur Oxides

40 CFR §60.46c(e) - Emission monitoring for sulfur dioxide.

“The monitoring requirements of paragraphs (a) and (d) of this section shall not apply to affected facilities subject to §60.42c(h) (1), (2), or (3) where the owner or operator of the affected facility seeks to demonstrate compliance with the SO₂ standards based on fuel supplier certification, as described under §60.48c(f), as applicable.”

D. Control of Nitrogen Oxides

The Permittee shall measure the NO_x content of the flue gases from each boiler for a 5-minute period for every 168 hours of operation on fuel oil. The Permittee shall use an analyzer that is properly calibrated and

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	<p>maintained in accordance with the vendor specification. The analyzer shall be the type approved by the Department [Reference: COMAR 26.11.03.06C]</p> <p>E. <u>Operational Limitation:</u> See Record Keeping Requirements.</p>
1.4	<p><u>Record Keeping Requirements:</u> Note: All records must be maintained for a period of at least 5 years. [Reference: COMAR 26.11.03.06C(5)(g)]</p> <p>A. <u>Control of Visible Emissions</u> The Permittee shall: (1) Maintain an operation manual and prevention maintenance plan on site; (2) Maintain a record of the maintenance performed that relates to combustion performance; (3) Maintain a log of visible emissions observations performed and make it available to the Department’s representative upon request; (4) Maintain a record of the hours that No. 2 fuel oil is burned. [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Particulate Matter Emissions</u> Note: The PM requirements in this table only apply to EU-1 and EU-2. See Record Keeping Requirements for Control of Sulfur Oxides.</p> <p>C. <u>Control of Sulfur Oxides</u> The Permittee shall maintain records of fuel supplier’s certification. [Reference: COMAR 26.11.03.06C]</p> <p>Fuel supplier certification shall include the following information: (1) For distillate oil: (i) The name of the oil supplier; (ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in §60.41c; and (iii) The sulfur content of the oil. [Reference: 40 CFR §60.48c(f)]</p>

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	<p>D. <u>Control of Nitrogen Oxides</u> The Permittee shall maintain the results of the NO_x stack tests and the NO_x analyzer readings for at least 5 years and make them available to the Department upon request [Reference: COMAR 26.11.03.06C].</p> <p>The Permittee shall maintain a record of training program attendance for each operator at the site. [Reference: COMAR 26.11.09.08E(5)].</p> <p>E. <u>Operational Limit:</u> In order to demonstrate compliance with the emissions limitations requirement for exemption from New Source Review (NSR), the Permittee shall calculate and record the emissions from the three (3) boilers, for each previous calendar month and a total for the previous 12 consecutive calendar months. The calculations and records shall be updated monthly, within the first 15 days of each following month. [Reference: PTC 003-0208-5-0681, 5-0682, & 5-0683 issued January 13, 2009]</p>
1.5	<p><u>Reporting Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u> The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, “Report of Excess Emissions and Deviations”.</p> <p>B. <u>Control of Particulate Matter Emissions</u> Note: The PM requirements in this table only apply to EU-1 and EU-2.</p> <p>The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period. [Reference: 40 CFR §60.48c(j)]</p> <p>C. <u>Control of Sulfur Oxides</u> The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period. [Reference: 40 CFR §60.48c(j)]</p>

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	<p>D. <u>Control of Nitrogen Oxides</u> The Permittee shall report the results of NO_x testing on these boilers along with supporting data from the stack test within 45 days of the completion of the stack test. [Reference: COMAR 26.11.03.06C]</p> <p>E. <u>Operational Limit:</u> The Permittee shall submit records of the quantity and type of fuels burned with the annual emissions certification report. See permit condition 8 of Section III.</p>

A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.

Table IV – 2	
2.0	<p><u>Emissions Unit Number(s): EU-31</u> <u>Boiler < 10 million Btu per hour</u></p> <p>EU-31: One (1) Smith No. 2 fuel oil boiler rated at 3.22 million Btu per hour heat input used for heat and process steam located in Building 123. [003-0208-4-0886].</p> <p><i>This boiler replaces the EU-9 boiler.</i></p>
2.1	<p><u>Applicable Standards/Limits:</u></p> <p>A. <u>Control of Visible Emissions</u> COMAR 26.11.09.05A – <u>Fuel Burning Equipment</u> “(2) Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity.” (3) <u>Exceptions.</u> “Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if: (a) The visible emissions are not greater than 40 percent opacity; and (b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period.”</p> <p>B. <u>Control of Sulfur Oxides</u> COMAR 26.11.09.07A(2) - <u>Sulfur Content Limitations for Fuel.</u></p>

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“A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV: (b) Distillate fuel oils, 0.3 percent.”

C. Control of Nitrogen Oxides

COMAR 26.11.09.08B(5) - Operator Training.

- (a) “For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.
- (b) The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department.”

COMAR 26.11.09.08E. - Requirements for Fuel-Burning Equipment with a Rated Heat Input Capacity of 100 Million Btu Per Hour or Less. “A person who owns or operates fuel-burning equipment with a rated heat input capacity of 100 Million Btu per hour or less shall:

- (1) Submit to the Department an identification of each affected installation, the rated heat input capacity of each installation, and the type of fuel burned in each;
- (2) Perform a combustion analysis for each installation at least once each year and optimize combustion based on the analysis;
- (3) Maintain the results of the combustion analysis at the site for at least 2 years and make this data available to the Department and the EPA upon request;
- (4) Once every 3 years, require each operator of the installation to attend operator training programs on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and
- (5) Prepare and maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request.”

D. Operating Limitation

The Permittee shall only burn No. 2 fuel oil in EU-31 unless the Permittee applies for and receives an approval or permit from the Department to burn alternate fuels. **[Reference: COMAR 26.11.02.09A]**

See Table 2a-MACT for additional requirements.

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2.2	<p><u>Testing Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u> See Monitoring Requirements.</p> <p>B. <u>Control of Sulfur Oxides</u> See Monitoring Requirements.</p> <p>C. <u>Control of Nitrogen Oxides</u> The Permittee shall perform a combustion analysis once a year. [Reference: COMAR 26.11.09.08E(2)]</p> <p>D. <u>Operating Limitation</u> See Record Keeping Requirements.</p>
2.3	<p><u>Monitoring Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u> The Permittee shall:</p> <ol style="list-style-type: none"> (1) Properly operate and maintain the boilers in a manner to prevent visible emissions; and (2) Verify no visible emissions when burning No. 2 fuel oil. The Permittee shall perform a visual observation for a 6-minute period once for each 168 hours that the boiler burns oil or at a minimum of once per year. <p>The Permittee shall perform the following if emissions are visible:</p> <ol style="list-style-type: none"> (1) Inspect combustion control system and boiler operations, (2) Perform all necessary adjustments and/or repairs to the boiler within 48 hours, so that visible emissions are eliminated; (3) Document in writing the results of the inspections, adjustments and/or repairs to the boiler; and (4) After 48 hours, if the required adjustments and/or repairs have not eliminated the visible emissions, perform Method 9 observations once daily for 18 minutes until corrective actions have eliminated the visible emissions. <p>[Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides</u> The Permittee shall obtain a certification from the fuel supplier indicating that the oil complies with the limitation on the sulfur content of the fuel oil. [Reference: COMAR 26.11.03.06C]</p>

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	<p>C. <u>Control of Nitrogen Oxides</u> The Permittee shall optimize combustion based on the annual combustion analysis. [Reference: COMAR 26.11.09.08E(2)]</p> <p>D. <u>Operating Limitation</u> See Record Keeping Requirements.</p>
2.4	<p><u>Record Keeping Requirements:</u> <u>NOTE:</u> All records must be maintained for a period of at least 5 years. [Reference: COMAR 26.11.03.06.C(5)(g)]</p> <p>A. <u>Control of Visible Emissions</u> The Permittee shall: (1) Maintain an operation manual and prevention maintenance plan on site; (2) Maintain a record of the maintenance performed that relates to combustion performance; (3) Maintain a log of visible emissions observations performed and make it available to the Department’s representative upon request; (4) Maintain a record of the hours that No. 2 fuel oil is burned. [Reference: COMAR 26.11.03.06C].</p> <p>B. <u>Control of Sulfur Oxides</u> The Permittee shall maintain records of fuel supplier’s certification and shall make records available to the Department upon request. [Reference: COMAR 26.11.03.06C]</p> <p>C. <u>Control of Nitrogen Oxides</u> The Permittee shall maintain: (1) Records of the results of the annual combustion analysis on site. [Reference: COMAR 26.11.09.08E(3)] (2) Records of training program attendance for each operator at the site. [Reference: COMAR 26.11.09.08E(5)]</p> <p>D. <u>Operational Limitation</u> The Permittee shall maintain records of the quantity of fuel burned. [Reference: COMAR 26.11.02.19C(1)(c)]</p>

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2.5	<p><u>Reporting Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u> The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, “Report of Excess Emissions and Deviations”.</p> <p>B. <u>Control of Sulfur Oxides</u> The Permittee shall report fuel supplier certification to the Department upon request. [Reference: COMAR 26.11.09.07C].</p> <p>C. <u>Control of Nitrogen Oxides</u> The Permittee shall submit:</p> <ol style="list-style-type: none"> (1) The results of combustion analysis to the department and the EPA upon request. [Reference: COMAR 26.11.09.08E(3)] (2) A record of training program attendance for each operator to the Department upon request. [Reference: COMAR 26.11.09.08E(5)]. <p>D. <u>Operational Limitation</u> The Permittee shall submit records of the quantity of fuel burned with the annual emissions certification report. See permit condition 8 of Section III.</p>

A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.

Table IV – 2a: MACT	
2a.0	<p><u>Emissions Unit Number(s): EU-1 thru EU-3 & EU-31 Cont'd</u></p> <p>EU-1 – Boiler #1: One (1) Indeck natural gas/No. 2 fuel oil fired boiler rated at 55 million Btu per hour heat input. [003-0208-5-0681]</p> <p>EU-2 - Boiler #2: One (1) Indeck natural gas/No. 2 fuel oil fired boiler rated at 55 million Btu per hour heat input. [003-0208-5-0682]</p> <p>EU-3 - Boiler #3: One (1) Indeck natural gas/No. 2 fuel oil fired boiler rated at 25 million Btu per hour heat input. [003-0208-5-0683]</p> <p>EU-31: One (1) Smith No. 2 fuel oil boiler rated at 3.22 million Btu per hour heat input used for heat and process steam located in Building 123. [003-0208-4-0886]. This boiler replaces the EU-9 boiler.</p>

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Table IV – 2a: MACT	
2a.1	<p><u>Applicable Standards/Limits:</u></p> <p><u>Control of HAPs:</u> 40 CFR Part 63 Subpart JJJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources 40 CFR §63.11193 - <u>Am I subject to this subpart?</u> “You are subject to this subpart if you own or operate an industrial, commercial, or institutional boiler as defined in §63.11237 that is located at, or is part of, an area source of hazardous air pollutants (HAP), as defined in §63.2, except as specified in §63.11195.”</p> <p>40 CFR §63.11194 - <u>What is the affected source of this subpart?</u> “(a) This subpart applies to each new, reconstructed, or existing affected source as defined in paragraphs (a)(1) and (2) of this section. (1) The affected source of this subpart is the collection of all existing industrial, commercial, and institutional boilers within a subcategory, as listed in §63.11200 and defined in §63.11237, located at an area source.” (2) The affected source of this subpart is each new or reconstructed industrial, commercial, or institutional boiler within a subcategory, as listed in §63.11200 and as defined in §63.11237, located at an area source.</p> <p>“(b) An affected source is an existing source if you commenced construction or reconstruction of the affected source on or before June 4, 2010.”</p> <p>“(c) An affected source is a new source if you commenced construction of the affected source after June 4, 2010, and the boiler meets the applicability criteria at the time you commence construction.”</p> <p>40 CFR §63.11196 - <u>What are my compliance dates?</u> “(a) If you own or operate an existing affected boiler, you must achieve compliance with the applicable provisions in this subpart as specified in paragraphs (a)(1) through (3) of this section. (1) If the existing affected boiler is subject to a work practice or management practice standard of a tune-up, you must achieve compliance with the work practice or management practice standard no later than March 21, 2014. (2) <i>Not Applicable.</i></p>

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Table IV – 2a: MACT

(3) If the existing affected boiler is subject to the energy assessment requirement, you must achieve compliance with the energy assessment requirement no later than March 21, 2014.”
 “**(c)** If you start up a new affected source after May 20, 2011, you must achieve compliance with the provisions of this subpart upon startup of your affected source.”

40 CFR §63.11201 - What standards must I meet?

“**(b)** You must comply with each work practice standard, emission reduction measure, and management practice specified in **Table 2** to this subpart that applies to your boiler. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in Table 2 to this subpart satisfies the energy assessment requirement. A facility that operates under an energy management program established through energy management systems compatible with ISO 50001, that includes the affected units, also satisfies the energy assessment requirement.”

“**(d)** These standards apply at all times the affected boiler is operating, except during periods of startup and shutdown as defined in §63.11237, during which time you must comply only with **Table 2** to this subpart.”

Table 2 to Subpart JJJJJJ of Part 63—Work Practice Standards, Emission Reduction Measures, and Management Practices

As stated in §63.11201, you must comply with the following applicable work practice standards, emission reduction measures, and management practices:

If your boiler is in this subcategory	You must meet the following.
4. Existing oil-fired boilers with heat input capacity greater than 5 MMBtu/hr. that do not meet the definition of seasonal boiler or limited-use boiler or use an oxygen trim system that maintains an optimum air-to-fuel ratio. EU-1 thru EU-3	Conduct an initial tune-up as specified in §63.11214, and conduct a tune-up of the boiler biennially as specified in §63.11223
13. New oil-fired boilers with heat input capacity of equal to or less than 5 MMBtu/hr. EU-31	Conduct a tune-up of the boiler every 5 years as specified in §63.11223.

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	16. Existing coal-fired, biomass-fired, or oil-fired boilers (units with heat input capacity of 10 MMBtu/hr. and greater), not including limited-use boilers	Must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table satisfies the energy assessment requirement. Energy assessor approval and qualification requirements are waived in instances where past or amended energy assessments are used to meet the energy assessment requirements. A facility that operated under an energy management program developed according to the ENERGY STAR guidelines for energy management or compatible with ISO 50001 for at least 1 year between January 1, 2008, and the compliance date specified in §63.11196 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items (1) to (4) appropriate for the on-site technical hours listed in §63.11237:
		(1) A visual inspection of the boiler system,
		(2) An evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints,
		(3) An inventory of major energy use systems consuming energy from affected boiler(s) and which are under control of the boiler owner or operator,
		(4) A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage,
		(5) A list of major energy conservation measures that are within the facility's control,
		(6) A list of the energy savings potential of the energy conservation measures identified, and

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	(7) A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.
2a.2	<p><u>Testing Requirements:</u></p> <p><u>Control of HAPs:</u> <u>Initial Compliance Requirements</u> 40 CFR §63.11210 - What are my initial compliance requirements and by what date must I conduct them? “(c) For existing affected boilers that have applicable work practice standards, management practices, or emission reduction measures, you must demonstrate initial compliance no later than the compliance date that is specified in §63.11196 and according to the applicable provisions in §63.7(a)(2), except as provided in paragraph (j) of this section.” “(g) For new or reconstructed affected boilers that have applicable work practice standards or management practices, you are not required to complete an initial performance tune-up, but you are required to complete the applicable biennial, or 5-year tune-up as specified in §63.11223 no later than 25 months or 61 months, respectively, after the initial startup of the new or reconstructed affected source.”</p> <p>40 CFR §63.11214 - How do I demonstrate initial compliance with the work practice standard, emission reduction measures, and management practice? “(b) If you own or operate an existing or new biomass-fired boiler or an existing or new oil-fired boiler, you must conduct a performance tune-up according to §63.11210(c) or (g), as applicable, and §63.11223(b). If you own or operate an existing biomass-fired boiler or existing oil-fired boiler, you must submit a signed statement in the Notification of Compliance Status report that indicates that you conducted an initial tune-up of the boiler.” “(c) If you own or operate an existing affected boiler with a heat input capacity of 10 million Btu per hour or greater, you must submit a signed certification in the Notification of Compliance Status report that an energy assessment of the boiler and its energy use systems was completed according to Table 2 to this subpart and that the assessment is an accurate depiction of your facility at the time of the assessment or that the maximum number of on-site technical hours specified in the</p>

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	<p>definition of energy assessment applicable to the facility has been expended.”</p> <p>40 CFR §63.11223 - <u>How do I demonstrate continuous compliance with the work practice and management practice standards?</u></p> <p>“(a) For affected sources subject to the work practice standard or the management practices of a tune-up, you must conduct a performance tune-up according to paragraph (b) of this section and keep records as required in §63.11225(c) to demonstrate continuous compliance. You must conduct the tune-up while burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up.”</p> <p>“(b) Except as specified in paragraphs (c) through (f) of this section, you must conduct a tune-up of the boiler biennially to demonstrate continuous compliance as specified in paragraphs (b)(1) through (7) of this section. Each biennial tune-up must be conducted no more than 25 months after the previous tune-up. For a new or reconstructed boiler, the first biennial tune-up must be no later than 25 months after the initial startup of the new or reconstructed boiler.</p> <p>(1) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection.</p> <p>(2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.</p> <p>(3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection.</p> <p>(4) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject.</p> <p>(5) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet</p>

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	<p>basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.</p> <p>(6) Maintain on-site and submit, if requested by the Administrator, a report containing the information in paragraphs (b)(6)(i) through (iii) of this section.</p> <p>(i) The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler.</p> <p>(ii) A description of any corrective actions taken as a part of the tune-up of the boiler.</p> <p>(iii) The type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.</p> <p>(7) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup.”</p> <p>“(e) Oil-fired boilers with a heat input capacity of equal to or less than 5 million Btu per hour must conduct a tune-up every 5 years as specified in paragraphs (b)(1) through (7) of this section. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed oil-fired boiler with a heat input capacity of equal to or less than 5 million Btu per hour, the first 5-year tune-up must be no later than 61 months after the initial startup. You may delay the burner inspection specified in paragraph (b)(1) of this section and inspection of the system controlling the air-to-fuel ratio specified in paragraph (b)(3) of this section until the next scheduled unit shutdown, but you must inspect each burner and system controlling the air-to-fuel ratio at least once every 72 months.”</p>
2a.3	<p><u>Monitoring Requirements:</u></p> <p><u>Control of HAPs:</u> 40 CFR §63.11205 - <u>What are my general requirements for complying with this subpart?</u></p> <p>“(a) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to</p>

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	the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.”
2a.4	<p><u>Record Keeping Requirements:</u></p> <p><u>Control of HAPs:</u> 40 CFR §63.11225 - What are my notification, reporting, and recordkeeping requirements? “(c) You must maintain the records specified in paragraphs (c)(1) through (7) of this section. (1) As required in §63.10(b)(2)(xiv), you must keep a copy of each notification and report that you submitted to comply with this subpart and all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted. (2) You must keep records to document conformance with the work practices, emission reduction measures, and management practices required by §63.11214 and §63.11223 as specified in paragraphs (c)(2)(i) through (vi) of this section. (i) Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned. (ii) <i>Not Applicable.</i> (iii) For each boiler required to conduct an energy assessment, you must keep a copy of the energy assessment report. (iv) <i>Not Applicable.</i> (v) <i>Not Applicable.</i> (vi) <i>Not Applicable.</i> (3) <i>Not Applicable.</i> (4) Records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment. (5) Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in §63.11205(a), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation. (6) <i>Not Applicable.</i> (7) <i>Not Applicable.</i>” “(d) Your records must be in a form suitable and readily available for expeditious review. You must keep each record for 5 years following the date of each recorded action. You must keep each record on-site or be</p>

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	accessible from a central location by computer or other means that instantly provide access at the site for at least 2 years after the date of each recorded action. You may keep the records off site for the remaining 3 years.”
2a.5	<p><u>Reporting Requirements:</u></p> <p><u>Control of HAPs:</u> 40 CFR §63.11225 - What are my notification, reporting, and recordkeeping requirements?</p> <p>“(a) You must submit the notifications specified in paragraphs (a)(1) through (5) of this section to the administrator.</p> <p>(1) You must submit all of the notifications in §§63.7(b); 63.8(e) and (f); and 63.9(b) through (e), (g), and (h) that apply to you by the dates specified in those sections except as specified in paragraphs (a)(2) and (4) of this section.</p> <p>(2) An Initial Notification must be submitted no later than January 20, 2014, or within 120 days after the source becomes subject to the standard.</p> <p>(3) <i>Not Applicable.</i></p> <p>(4) You must submit the Notification of Compliance Status no later than 120 days after the applicable compliance date specified in §63.11196 unless you own or operate a new boiler subject only to a requirement to conduct a biennial or 5-year tune-up or you must conduct a performance stack test. If you own or operate a new boiler subject to a requirement to conduct a tune-up, you are not required to prepare and submit a Notification of Compliance Status for the tune-up. If you must conduct a performance stack test, you must submit the Notification of Compliance Status within 60 days of completing the performance stack test. You must submit the Notification of Compliance Status in accordance with paragraphs (a)(4)(i) and (vi) of this section. The Notification of Compliance Status must include the information and certification(s) of compliance in paragraphs (a)(4)(i) through (v) of this section, as applicable, and signed by a responsible official.</p> <p>(i) You must submit the information required in §63.9(h)(2), except the information listed in §63.9(h)(2)(i)(B), (D), (E), and (F). If you conduct any performance tests or CMS performance evaluations, you must submit that data as specified in paragraph (e) of this section. If you conduct any opacity or visible emission observations, or other monitoring procedures or methods, you must submit that data to the Administrator at the appropriate address listed in §63.13.</p>

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	<p>(ii) “This facility complies with the requirements in §63.11214 to conduct an initial tune-up of the boiler.”</p> <p>(iii) “This facility has had an energy assessment performed according to §63.11214(c).”</p> <p>(iv) <i>Not Applicable.</i>”</p> <p>(v) <i>Not Applicable.</i>”</p> <p>(vi) The notification must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written Notification of Compliance Status must be submitted to the Administrator at the appropriate address listed in §63.13.</p> <p>(5) <i>Not Applicable.</i></p> <p>(b) You must prepare, by March 1 of each year, and submit to the delegated authority upon request, an annual compliance certification report for the previous calendar year containing the information specified in paragraphs (b)(1) through (4) of this section. You must submit the report by March 15 if you had any instance described by paragraph (b)(3) of this section. For boilers that are subject only to the energy assessment requirement and/or a requirement to conduct a biennial or 5-year tune-up according to §63.11223(a) and not subject to emission limits or operating limits, you may prepare only a biennial, or 5-year compliance report as specified in paragraphs (b)(1) and (2) of this section.</p> <p>(1) Company name and address.</p> <p>(2) Statement by a responsible official, with the official's name, title, phone number, email address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart. Your notification must include the following certification(s) of compliance, as applicable, and signed by a responsible official:</p> <p>(i) “This facility complies with the requirements in §63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler.”</p> <p>(ii) For units that do not qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act: “No secondary materials that are solid waste were combusted in any affected unit.”</p> <p>(iii) “This facility complies with the requirement in §§63.11214(d) and 63.11223(g) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a</p>

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	<p>boiler of similar design if manufacturer's recommended procedures are not available.”</p> <p>(3) If the source experiences any deviations from the applicable requirements during the reporting period, include a description of deviations, the time periods during which the deviations occurred, and the corrective actions taken.</p> <p>(4) <i>Not Applicable.</i>”</p>

A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.

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3.0	<p><u>Emissions Unit Number(s): Boilers < 10 million Btu per hour natural gas fired.</u></p> <p>EU-19 and EU-20: Two (2) Hydrotherm KN-20 natural gas-fired boilers each rated at 1.99 million Btu per hour heat input. [003-0208-5-0769 and 5-0770]</p> <p>EU-23, EU-24, EU-25, and EU-26: Four (4) Hydrotherm KN-30 natural gas-fired boilers each rated at 3.0 million Btu per hour heat input. [003-0208-5-0771 through 5-0774]</p> <p>EU-27: One (1) Hydrotherm KN-10 natural gas-fired boiler rated at 1.0 million Btu per hour heat input used for production of HTHW located at ARFF Building. [003-0208-5-0794]</p> <p>EU-28: One (1) Cleaver Brooks CFH-700-50-15ST natural gas-fired boiler rated at 1.969 million Btu per hour heat input used for production of HTHW located at LSC Building. [003-0208-5-0808]</p> <p>EU-30: One (1) Trane natural gas-fired boiler rated at 1.65 million Btu per hour heat input used for heat located ARFF Building. [003-0208-5-0831]</p> <p>EU-33 and EU-34: Two (2) KN-30 natural gas-fired boilers rated at 3.00 million Btu per hour heat input. [003-0208-5-0880 and 5-0881]</p>
3.1	<p><u>Applicable Standards/Limits:</u></p> <p>A. <u>Control of Visible Emissions</u> COMAR 26.11.09.05A – Fuel Burning Equipment “(2) Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data,</p>

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	<p>emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity.”</p> <p>(3) <u>Exceptions</u>. “Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if:</p> <p>(a) The visible emissions are not greater than 40 percent opacity; and</p> <p>(b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period.”</p> <p>B. <u>Control of Nitrogen Oxides</u></p> <p>COMAR 26.11.09.08B(5) - <u>Operator Training</u>.</p> <p>(a) For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.</p> <p>(b) The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department.”</p> <p><u>{For EUs # 19, 20, 23 – 26, 33 & 34 only}</u></p> <p>COMAR 26.11.09.08E. <u>Requirements for Fuel-Burning Equipment with a Rated Heat Input Capacity of 100 Million Btu Per Hour or Less</u>. “A person who owns or operates fuel-burning equipment with a rated heat input capacity of 100 Million Btu per hour or less shall:</p> <p>(1) Submit to the Department an identification of each affected installation, the rated heat input capacity of each installation, and the type of fuel burned in each;</p> <p>(2) Perform a combustion analysis for each installation at least once each year and optimize combustion based on the analysis;</p> <p>(3) Maintain the results of the combustion analysis at the site for at least 2 years and make this data available to the Department and the EPA upon request;</p> <p>(4) Once every 3 years, require each operator of the installation to attend operator training programs on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and</p> <p>(5) Prepare and maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request.”</p> <p><u>{For EUs # 27, 28, & 30 only}</u></p> <p>COMAR 26.11.09.08F. <u>Requirements for Space Heaters</u>.</p> <p>“(1) A person who owns or operates a space heater as defined in Regulation .01B of this chapter shall:</p>
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	<p>(a) Submit to the Department a list of each affected installation on the premises and the types of fuel used in each installation;</p> <p>(b) Develop an operating and maintenance plan to minimize NO_x emissions based on the recommendations of equipment vendors and other information including the source's operating and maintenance experience;</p> <p>(c) Implement the operating and maintenance plan and maintain the plan at the premises for review upon request by the Department;</p> <p>(d) Require installation operators to attend in-State operator training programs once every 3 years on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and</p> <p>(e) Prepare and maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request.</p> <p>(2) A person who owns or operates an installation that no longer qualifies as a space heater shall inform the Department not later than 60 days after the date when the fuel-burning equipment did not qualify and shall meet the applicable fuel-burning equipment RACT requirement in this regulation.</p> <p><i>COMAR 26.11.09.01B(15) states, "Space heater" means fuel-burning equipment that consumes more than 60 percent of its annual fuel during the period from October 31 of one year through March 31 of the following year. For the purpose of this regulation, annual fuel use is the total fuel consumed during the period October 1 of one year to September 30 of the following year, beginning October 1, 1989."</i></p> <p>C. <u>Operating Limitation</u> The Permittee shall burn only natural gas in the eight (8) boilers unless the Permittee applies for and receives an approval or permit from the Department to burn alternate fuels. [Reference: COMAR 26.11.02.09A & MDE Permit Nos. 003-0208-5-0769 through 5-0774 issued on 05/13/13]</p>
3.2	<p><u>Testing Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u> See Monitoring Requirements.</p> <p>B. <u>Control of Nitrogen Oxides</u></p> <p><i>{For EUs # 19, 20, 23 – 26, 33 & 34 only}</i></p>

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	<p>The Permittee shall perform a combustion analysis once a year. [Reference: COMAR 26.11.09.08E(2)]</p> <p><u>For EU-27, EU-28 & EU-30 only</u> See Monitoring Requirements.</p> <p>C. <u>Operating Limitation</u> See Record Keeping Requirements.</p>
3.3	<p><u>Monitoring Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u> The Permittee shall properly operate and maintain the boilers in a manner to prevent visible emissions. [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Nitrogen Oxides</u> <u>{For EUs # 19, 20, 23 – 26, 33 & 34 only}</u> The Permittee shall optimize combustion based on the annual combustion analysis. [Reference: COMAR 26.11.09.08E(2)]</p> <p><u>For EU-27, EU-28 & EU-30 only</u> The Permittee shall develop and maintain an operating and maintenance plan to minimize NO_x. [Reference: COMAR 26.11.09.08F(1)(b)]</p> <p>C. <u>Operating Limitation</u> See Record Keeping Requirements.</p>
3.4	<p><u>Record Keeping Requirements:</u> NOTE: All records must be maintained for a period of at least 5 years. [Reference: COMAR 26.11.03.06C(5)(g)]</p> <p>A. <u>Control of Visible Emissions</u> The Permittee shall maintain an operations manual and preventive maintenance plan. The Permittee shall maintain a log of maintenance performed that relates to combustion performance. [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Nitrogen Oxides</u> The Permittee shall maintain: <u>{For EUs # 19, 20, 23 – 26, 33 & 34 only}</u> (1) Records of the results of the annual combustion analysis on site. [Reference: COMAR 26.11.09.08E(3)]</p>

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	<p>(2) Record of training program attendance for each operator at the site. [Reference: COMAR 26.11.09.08E(5)]</p> <p><i>{For EU-27, EU-28 & EU-30 only}</i> The Permittee shall maintain:</p> <p>(1) Records of maintenance performed that relates to combustion performance in keeping with the requirements of an operations and maintenance plan. [Reference: COMAR 26.11.09.08F(1)(c)]</p> <p>(2) Record of training program attendance for each operator. [Reference: COMAR 26.11.09.08F(1)(e)].</p> <p>(3) An operations manual and preventive maintenance plan. [Reference: COMAR 26.11.09.08F(1)(b)].</p> <p>(4) Records of fuel use that demonstrate that the boiler meets the definition of a space heater. [Reference: COMAR 26.11.09.08K(3) and COMAR 26.11.03.06C].</p> <p>C. <u>Operational Limitation</u> The Permittee shall maintain monthly records of the total natural gas usage in million cubic feet for the eight (8) boilers. [Reference: MDE Permit Nos. 003-0208-5-0769 thru 5-0774 issued on 05/13/2013 and COMAR 26.11.03.06]</p>
3.5	<p><u>Reporting Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u> The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, “Report of Excess Emissions and Deviations”.</p> <p>B. <u>Control of Nitrogen Oxides</u> The Permittee shall submit:</p> <p>(1) The results of combustion analysis to the department and the EPA upon request. [Reference: COMAR 26.11.09.08E(3)]</p> <p>(2) A record of training program attendance for each operator to the Department upon request. [Reference: COMAR 26.11.09.08E(5)].</p> <p><i>For EU-27, EU-28 & EU-30 only</i> The Permittee shall submit a record of training program attendance for each operator to the Department upon request. [Reference: COMAR 26.11.09.08F(1)(e)]</p>

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	<p><u>C. Operational Limitation</u> The Permittee shall submit records of the quantity and type of fuels burned with the annual emissions certification report. See permit condition 8 of Section III.</p>

A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.

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4.0	<p><u>Emissions Unit Number(s): EU-4 through EU-6; EU-10 thru EU-18, EU-29 & EU-32 - Emergency Generators.</u></p> <p>EU-4 - One (1) Spectrum 500DS4 505 kW standby diesel fired emergency generator used for electricity generation located at Pier D-Front of Terminal Building. [003-0208-9-0916]. See Table IV-4b for additional requirements.</p> <p>EU-5 - One (1) Caterpillar SR4 750 kW standby diesel-fired emergency generator used for electricity generation located at Daily Parking Garage. [003-0208-9-0910]. See Table IV-4b for additional requirements.</p> <p>EU-6 -- One (1) Caterpillar 1207 bhp (900 kW) standby diesel fired emergency generator used for electricity generation located at Pier A. [003-0208-9-0914]. See Table IV-4b for additional requirements.</p> <p>EU-10 - One (1) Caterpillar SR4B 600 kW standby diesel fired Emergency generator located at International Terminal Roof. [003-0208-9-0912] See Table IV-4b for additional requirements.</p> <p>EU-11 - One (1) Kohler 644 bhp (410 kW) standby diesel fired emergency generator used for electricity generation located at MAC Building. [003-0208-9-0913]. See Table IV-4b for additional requirements.</p> <p>EU-12 - One (1) Caterpillar SR4 600 kW standby diesel-fired emergency generator used for electricity generation located at Airfield Lighting Vault. [003-0208-9-0909]. See Table IV-4b for additional requirements.</p> <p>EU-13 - One (1) Onan 600 kW standby diesel fired emergency generator used for electricity generation located at Hourly Parking Garage. [003-0208-9-0911]. See Table IV-4b for additional requirements.</p> <p>EU-14 - One (1) Generac 671 bhp (500 kW) standby diesel-fired emergency generator used for electricity generation located at Pier A Triturator. [003-0208-9-0915]. See Table IV-4b for additional requirements.</p> <p>EU-15 - One (1) Katolight 1495 bhp (900kW) standby diesel-fired emergency generator used for electricity generation located at</p>

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	<p>International Terminal LL. [003-0208-9-0948]. See Table IV-4a for additional requirements.</p> <p>EU-16 – One (1) Detroit Diesel 2000 kW standby diesel-fired emergency generator used for electricity generation located at CDC. [003-0208-9-1030]. See Table IV-4a for additional requirements.</p> <p>EU-17 - One (1) Baldor 2000 kW standby diesel-fired emergency generator used for electricity generation located at Central Utility Plant. [003-0208-9-1053]. See Table IV-4a for additional requirements.</p> <p>EU-18 – One (1) MTU Onsite Energy 900-XC6DT2 900kW (1354 hp) standby diesel-fired emergency generator used for electricity generation located at aircraft gate C-2. [003-0208-9-1070]. See Table IV-4a for additional requirements.</p> <p>EU-29 - One (1) MTU Onsite Energy 750kW standby diesel-fired emergency generator used for electricity generation located at OMU Building. [003-0208-9-1109]. See Table IV-4a for additional requirements.</p> <p>EU-32 - One (1) Temporary generator rated at 1000 kW or less used for electricity generation. [003-0208-9-1140]. See Table IV-4a for additional requirements.</p>
4.1	<p><u>Applicable Standards/Limits:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>COMAR 26.11.09.05E - <u>Stationary Internal Combustion Engine Powered Equipment</u></p> <p>(2) <u>“Emissions During Idle Mode.</u> A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.</p> <p>(3) <u>Emissions During Operating Mode.</u> A person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.</p> <p>(4) <u>Exceptions.</u></p> <p>(a) Section E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.</p> <p>(b) Section E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:</p> <p>(i) Engines that are idled continuously when not in service: 30 minutes;</p> <p>(ii) All other engines: 15 minutes.</p>

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	<p>(c) Section E(2) and (3) of this regulation do not apply while maintenance, repair, or testing is being performed by qualified mechanics.”</p> <p>B. <u>Control of Sulfur Oxides</u> COMAR 26.11.09.07A(2) - <u>Sulfur Content Limitations for Fuel.</u> “A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV: (b) Distillate fuel oils, 0.3 percent.”</p> <p>C. <u>Control of Nitrogen Oxides</u> COMAR 26.11.09.08B(5) - <u>Operator Training.</u> (a) “For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation. (b) The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department.”</p> <p>COMAR 26.11.09.08G(1) - <u>Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less, and Combustion Turbines with a Capacity Factor Greater than 15 Percent.</u> “A person who owns or operates fuel-burning equipment with a capacity factor (as defined in 40 CFR Part 72.2) of 15 percent or less shall: (a) Provide certification of the capacity factor of the equipment to the Department in writing; (b) For fuel-burning equipment that operates more than 500 hours during a calendar year, perform a combustion analysis and optimize combustion at least once annually; (c) Maintain the results of the combustion analysis at the site for at least 2 years and make these results available to the Department and the EPA upon request; (d) Require each operator of an installation, except combustion turbines, to attend operator training programs at least once every 3 years, on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and (e) Maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request.”</p>
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4.2	<p><u>Testing Requirements:</u></p> <p>A. <u>Control of Visible Emissions:</u> See Monitoring Requirements.</p> <p>B. <u>Control of Sulfur Oxides</u> See Monitoring Requirement.</p> <p>C. <u>Control of Nitrogen Oxides:</u> The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year. [Reference: COMAR 26.11.09.08G(1)(b)].</p>
4.3	<p><u>Monitoring Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u> The Permittee shall perform preventive maintenance to optimize combustion performance. [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides</u> The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation. [Reference: COMAR 26.11.03.06C]</p> <p>C. <u>Control of Nitrogen Oxides</u> For engines that operate more than 500 hours during a calendar year, perform a combustion analysis and optimize combustion. [Reference: COMAR 26.11.09.08G(1)(c)]</p>
4.4	<p><u>Record Keeping Requirements:</u></p> <p>Note: All records must be maintained for a period of at least 5 years. [Reference: COMAR 26.11.03.06C(5)(g)]</p> <p>A. <u>Control of Visible Emissions</u> The Permittee shall retain records of preventive maintenance on site and make them available to the Department upon request. [Reference: COMAR 26.11.03.06C]</p>

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	<p>B. <u>Control of Sulfur Oxides</u> The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation. [Reference: COMAR 26.11.09.07C]</p> <p>C. <u>Control of Nitrogen Oxides</u> The Permittee shall maintain:</p> <ol style="list-style-type: none"> (1) Records of the results of the combustion analysis at the site and make these results available to the Department and the EPA upon request. [Reference: COMAR 26.11.09.08G(1)(c) and COMAR 26.11.03.06C]. (2) Record of training program attendance for each operator at the site and make these records available to the Department upon request. [Reference: COMAR 26.11.09.08G(1)(e) and COMAR 26.11.03.06C]. (3) Records of hours of operation and fuel usage on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period. [Reference: COMAR 26.11.03.06C]
4.5	<p><u>Reporting Requirements:</u></p> <p>A. <u>Control of Visible Emissions:</u> The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, “Report of Excess Emissions and Deviations”.</p> <p>B. <u>Control of Sulfur Oxides</u> The Permittee shall report fuel supplier certification for sulfur content to the Department upon request. [Reference: COMAR 26.11.09.07C and COMAR 26.11.03.06C]</p> <p>C. <u>Control of Nitrogen Oxides</u> The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing with the annual emission certification. [Reference: COMAR 26.11.09.08G(1)(a)]</p>

A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.

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Table IV – 4a	
4a.0	<p><u>Emissions Unit Number(s): EU-15 through EU-18, EU-29 & EU-32 - Emergency Generators cont'd</u></p> <p>EU-15 - One (1) Katolight 1495 bhp (900kW) standby diesel-fired emergency generator used for electricity generation located at International Terminal LL. [003-0208-9-0948]. Engine manufactured in 2008.</p> <p>EU-16 – One (1) Detroit Diesel 2000 kW standby diesel-fired emergency generator used for electricity generation located at CDC. [003-0208-9-1030]. Engine manufactured in 2009.</p> <p>EU-17 - One (1) Baldor 2000 kW standby diesel-fired emergency generator used for electricity generation located at Central Utility Plant. [003-0208-9-1053]. Engine manufactured in April 2012.</p> <p>EU-18 – One (1) MTU Onsite Energy 900-XC6DT2 900kW (1354 hp) standby diesel-fired emergency generator used for electricity generation located at aircraft gate C-2. [003-0208-9-1070]. Engine manufactured in November 2012.</p> <p>EU-29 - One (1) MTU Onsite Energy 750kW standby diesel-fired emergency generator used for electricity generation located at OMU Building. [003-0208-9-1109]. Engine manufactured in 2015.</p> <p>EU-32 - One (1) Temporary generator rated at 1000 kW or less used for electricity generation. [003-0208-9-1140]. Engine manufactured in 2007 or newer.</p>
4a.1	<p><u>Applicable Standards/Limits:</u></p> <p>A. New Source Performance Standards (NSPS) under 40 CFR Part 60 Subpart IIII for Stationary Compression Ignition Internal Combustion Engines.</p> <p>Note: Installations subject to 40 CFR Part 60, Subpart IIII, beginning October 1, 2010, must comply with the fuel standards of §60.4207 which limit the maximum sulfur content of the fuel to 15 ppm.</p> <p>(1) This permit is valid only for the installation of an emergency diesel generator with piston displacement less than 10 liters per cylinder.</p> <p>(2) The provisions of 40 CFR Part 60, Subpart IIII apply if the emergency diesel generator uses a diesel engine manufactured after April 1, 2006. [Reference: 40 CFR §60.4200]</p>

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	<p>(3) An emergency diesel generator or diesel engine subject to the requirements of 40 CFR 60, Subpart IIII (“NSPS emergency diesel generator” or “NSPS emergency diesel engine”) shall be equipped with a non-resettable hour meter. [Reference: 40 CFR §60.4209(a)]</p> <p>(4) For 2007 model year and later model year NSPS emergency diesel engines, the Permittee must purchase and install an engine certified to the emission standards of §60.4205(b) for the same model year and maximum engine horsepower, to wit: [Reference: 40 CFR §60.4211(c)]</p> <p style="padding-left: 20px;">(a) For engines with a maximum engine power less than or equal to 2,237 KW (3,000 HP), the certification emission standards for new nonroad diesel engines in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants; [Reference: 40 CFR §62.4202(a)(2)]</p> <p>(5) After December 31, 2008, owners and operators may not install an emergency diesel generator that does not meet the applicable requirements for 2007 model year engines. [Reference: 40 CFR §60.4208]</p> <p>(6) The requirements of condition (5) above do not apply to owners or operators of NSPS emergency diesel engines that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location. [Reference: 40 CFR §60.4208]</p> <p>B. National Emissions Standards for Hazardous Air Pollutants (NESHAP) promulgated under 40 CFR 63, Subparts A and ZZZZ for Reciprocating Internal Combustion Engines</p> <p>40 CFR §63.6590(c) - <u>What parts of my plant does this subpart cover?</u> “This subpart applies to each affected source. <u>Stationary RICE subject to Regulations under 40 CFR Part 60.</u> An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. <i>No further requirements apply for such engines under this part.</i></p>
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	<p>(1) A new or reconstructed stationary RICE located at an area source.”</p> <p>Note: New stationary RICE located at an area source comply with 40 CFR Part 63, Subpart ZZZZ by complying with 40 CFR Part 60, Subpart IIII per 40 CFR §63.6590(c)(1)]</p> <p>C. <u>Operational Limits</u></p> <p>(1) The Permittee must operate and maintain an NSPS emergency diesel generator and control devices according to the manufacturer’s written instructions or according to procedures developed by the owner or operator that are approved by the manufacturer. Additionally, the Permittee may change only those settings that are permitted by the manufacturer. The Permittee must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they may apply to an owner or operator. [Reference: 40 CFR §60.4211]</p> <p>(2) Beginning October 1, 2010, an NSPS emergency diesel generator must combust diesel fuel meeting the requirements of 40 CFR §80.510(b), unless a waiver is obtained from the Department and/or the EPA Administrator. [Reference: 40 CFR §60.4207]</p> <p>(3) In accordance with 40 CFR §60.4211(f), use of each NSPS emergency diesel generator for the purpose of maintenance checks and readiness testing, as discussed in 40 CFR §60.4211(f)(2)(i) is limited to 100 hours per year or less unless prior approval is received from the Department.</p>
4a.2	<p><u>Testing Requirements:</u></p> <p>A. <u>NSPS</u> See Record Keeping Requirements</p> <p>B. <u>NESHAP</u> See NSPS Requirements above.</p> <p>C. <u>Operational Limit</u> See Reporting Requirements.</p>
4a.3	<p><u>Monitoring Requirements:</u></p> <p>A. <u>NSPS</u></p>

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Table IV – 4a	
	<p>See Record Keeping Requirements.</p> <p>B. <u>NESHAP</u> See NSPS Requirements above.</p> <p>C. <u>Operational Limit</u> See Reporting Requirements.</p>
4a.4	<p><u>Record Keeping Requirements:</u> <u>Note:</u> All records must be maintained for a period of at least 5 years. [Reference: COMAR 26.11.03.06C(5)(g)]</p> <p>A. <u>NSPS</u></p> <p>(1) The Permittee shall maintain a log for the emergency generator indicating the amounts of fuel oil combusted, the hours of operation, and reason for generator operation (i.e., maintenance or operational testing, power outage, etc.).</p> <p>(2) The Permittee shall maintain on site for the life of the source the following records for the emergency diesel generator(s):</p> <p>(a) Documentation of the manufacture date of the diesel engine, if manufactured prior to April 1, 2006, and the manufacturer model year of the diesel engine;</p> <p>(b) The installation date of each emergency diesel generator; and</p> <p>(c) The certifications of compliance or manufacturer engine test data required by 40 CFR §60.4211 and §60.4214(b).</p> <p>(3) Beginning October 1, 2010, for any NSPS emergency diesel generator the Permittee shall for each fuel delivery obtain from the fuel supplier a fuel supplier certification consisting of the name of the oil supplier, the date of delivery, the amount of fuel delivered, and a statement from the fuel supplier that the diesel fuel oil complies with the specifications of 40 CFR §80.510. The Permittee shall maintain the required records on site for at least five (5) years.</p> <p>B. <u>NESHAP</u> See NSPS Requirements above.</p> <p>C. <u>Operational Limit:</u> See Reporting Requirements.</p>

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Table IV – 4a	
4a.5	<p><u>Reporting Requirements:</u></p> <p>A. <u>NSPS</u> See Record Keeping Requirements.</p> <p>B. <u>NESHAP</u> See NSPS Requirements above.</p> <p>C. <u>Operational Limit</u> The Permittee shall report the amounts of fuel oil combusted, the hours of operation, and reason for generator operation (i.e., maintenance or operational testing, power outage, etc.) to the Department in the annual emission certification report due on April 1 of each year. [Reference: COMAR 26.11.03.06C]</p>

A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.

Table IV – 4b - MACT	
4b.0	<p><u>Emissions Unit Number(s): EU-4 through EU-6 & EU-10 through EU-14 – Emergency Generators Cont'd</u></p> <p>EU-4 - One (1) Spectrum 500DS4 505 kW standby diesel fired emergency generator used for electricity generation located at Pier D-Front of Terminal Building. [003-0208-9-0916].</p> <p>EU-5 - One (1) Caterpillar SR4 750 kW standby diesel-fired emergency generator used for electricity generation located at Daily Parking Garage. [003-0208-9-0910].</p> <p>EU-6 – One (1) Caterpillar 1207 bhp (900 kW) standby diesel fired emergency generator used for electricity generation located at Pier A. [003-0208-9-0914].</p> <p>EU-10 - One (1) Caterpillar SR4B 600 kW standby diesel fired Emergency generator located at International Terminal Roof. [003-0208-9-0912].</p> <p>EU-11 - One (1) Kohler 644 bhp (410 kW) standby diesel fired emergency generator used for electricity generation located at MAC Building. [003-0208-9-0913].</p> <p>EU-12 - One (1) Caterpillar SR4 600 kW standby diesel-fired emergency generator used for electricity generation located at Airfield Lighting Vault. [003-0208-9-0909].</p>

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Table IV – 4b - MACT								
	<p>EU-13 - One (1) Onan 600 kW standby diesel fired emergency generator used for electricity generation located at Hourly Parking Garage. [003-0208-9-0911].</p> <p>EU-14 - One (1) Generac 671 bhp (500 kW) standby diesel-fired emergency generator used for electricity generation located at Pier A Triturator. [003-0208-9-0915]</p>							
4b.1	<p><u>Applicable Standards/Limits:</u></p> <p>§63.6595(a) - When do I have to comply with this subpart? <i>Affected sources. (1)</i> If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than May 3, 2013.</p> <p><u>40 CFR §63.6603 - What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?</u> “Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart. (a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 1b and Table 2b to this subpart that apply to you.”</p> <p>Table 2d to Subpart ZZZZ of Part 63—Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions “As stated in §§63.6603 and 63.6640, you must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 40%;"></th> <th style="width: 30%;"></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">For each</td> <td style="text-align: center;">You must meet the following requirement, except during periods of startup .</td> <td style="text-align: center;">During periods of startup you must .</td> </tr> </tbody> </table>					For each	You must meet the following requirement, except during periods of startup .	During periods of startup you must .
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Table IV – 4b - MACT		
4. Emergency stationary CI RICE and black start stationary CI RICE. ²	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; ¹	
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.”	
<p>¹Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2d of this subpart.</p> <p>²If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State, or local law under which the risk was deemed unacceptable.</p> <p>40 CFR §63.6605 - <u>What are my general requirements for complying with this subpart?</u></p> <p>(a) “You must be in compliance with the emission limitations and operating limitations in this subpart that apply to you at all times.”</p> <p>(b) “At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.”</p>		

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Table IV – 4b - MACT	
4b.2	<p><u>Testing Requirements:</u></p> <p>See Section 4b.3, Monitoring Requirements.</p>
4b.3	<p><u>Monitoring Requirements:</u></p> <p>40 CFR §63.6625 - <u>What are my monitoring, installation, collection, operation, and maintenance requirements?</u></p> <p>“(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:</p> <p>(3) An existing emergency or black start stationary RICE located at an area source of HAP emissions.”</p> <p>“(f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.”</p> <p>“(h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.</p> <p>“(i) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all</p>

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Table IV – 4b - MACT

of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.”

40 CFR §63.6640 - How do I demonstrate continuous compliance with the emission limitations and operating limitations?

“(a) You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.”

“(f) **Requirements for emergency stationary RICE.** If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1), (2), and (4) of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1), (2), and (4), is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1),(2), and (4), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

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Table IV – 4b - MACT

- (1) There is no time limit on the use of emergency stationary RICE in emergency situations.
- (2) You may operate your emergency stationary RICE for the purpose specified in paragraph (f)(2)(i) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f) (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).
- (i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
- (4) Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (f)(2) of this section. Except as provided in paragraphs (f)(4)(i) and (ii) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
- (i) Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution system.

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Table IV – 4b - MACT	
	<p>(ii) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:</p> <p>(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.</p> <p>(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.</p> <p>(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.</p> <p>(D) The power is provided only to the facility itself or to support the local transmission and distribution system.</p> <p>(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.”</p>
4b.4	<p><u>Record Keeping Requirements:</u> Note: All records must be maintained for a period of at least 5 years. [Reference: COMAR 26.11.03.06C(5)(g)]</p> <p>40 CFR §63.6655 - <u>What records must I keep?</u> “(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE; (2) An existing stationary emergency RICE. (3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.” (f) If you own or operate any of the stationary RICE in paragraphs (f)(1) or (2) of this section, you must keep records of the hours of operation of</p>

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Table IV – 4b - MACT	
	the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response. (2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.”
4b.5	<p><u>Reporting Requirements:</u> “Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.” [Footnote 2 of 40 CFR Part 63, Subpart ZZZZ, Table 2d]</p>

A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.

Table IV – 5	
5.0	<p><u>Emissions Unit Number(s): EU-7 - Storage Tank</u></p> <p>EU-7 - One (1) motor gasoline storage tank (8000-gallon gasoline underground storage tank) located in Field Maintenance Building 116. [003-0208-9-0894]</p>
5.1	<p><u>Applicable Standards/Limits:</u></p> <p><u>Control of VOC Emissions</u> COMAR 26.11.13.04C – Small Storage Tanks. (1) <u>“Applicability.</u> This section applies to a person who owns or operates: (a) A gasoline storage tank that has a tank capacity greater than 2,000 gallons but less than 40,000 gallons; or (b) A gasoline tank truck used to transfer gasoline into a storage tank that is listed in Sec. C(1)(a) of this regulation.”</p>

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Table IV – 5	
	<p>(2) <u>Stage I Vapor Recovery</u>. “An owner or operator of a gasoline tank truck or an owner or operator of a stationary storage tank subject to this regulation may not cause or permit gasoline to be loaded into a stationary tank unless the loading system is equipped with a vapor balance line that is properly installed, maintained and used.”</p> <p>COMAR 26.11.13.04D. General Standards. “A person may not cause or permit gasoline or VOC having a TVP of 1.5 psia (10.3 kilonewtons/square meter) or greater to be loaded into any tank truck, railroad tank car, or other contrivance unless the:</p> <p>(1) Loading connections on the vapor lines are equipped with fittings that have no leaks and that automatically and immediately close upon disconnection to prevent release of gasoline or VOC from these fittings; and</p> <p>(2) Equipment is maintained and operated in a manner to prevent avoidable liquid leaks during loading or unloading operations.”</p>
5.2	<p><u>Testing Requirements:</u></p> <p><u>Control of VOC Emissions</u> See Monitoring Requirements</p>
5.3	<p><u>Monitoring Requirements:</u></p> <p><u>Control of VOC Emissions</u> Once a month during a delivery, the Permittee shall visually inspect all components on the premises for leaks and retain a record of these leak inspections. If leaks are detected, corrective action shall be as follows:</p> <p>(1) Take immediate action to repair all observed VOC leaks that can be repaired with 48 hours; and</p> <p>(2) Repair all other leaking components not later than 15 days after the leak is discovered. If a replacement part is needed, the part shall be ordered within 3 days after discovery of the leak, and the leak shall be repaired within 48 hours after receiving the part.</p> <p>[Reference: COMAR 26.11.03.06C]</p>
5.4	<p><u>Record Keeping Requirements:</u></p> <p>NOTE: All records must be maintained for a period of at least 5 years. [Reference: COMAR 26.11.03.06.C (5)(g)].</p> <p><u>Control of VOC Emissions</u></p>

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Table IV – 5	
	The Permittee shall maintain the results of monthly inspections and records of dates on which corrective actions and repairs were completed. [Reference: COMAR 26.11.03.06C]
5.5	<u>Reporting Requirements:</u> A. <u>Control of VOC Emissions</u> The Permittee shall make records available to the Department upon request. [Reference: COMAR 26.11.03.06C]

A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.

Table IV – 5a: MACT	
5a.0	<u>Emissions Unit Number(s): EU-7 - Storage Tank (Cont'd).</u> EU-7 - One (1) motor gasoline storage tank (8000 gallons gasoline underground storage tank, Stage II) located in Field Maintenance Building 116. [003-0208-9-0894]
5a.1	<u>Applicable Standards/Limits:</u> <u>Control of HAPs:</u> 40 CFR Part 63 Subpart CCCCCC—National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities 40 CFR §63.11110 - <u>What is the purpose of this subpart?</u> This subpart establishes national emission limitations and management practices for hazardous air pollutants (HAP) emitted from the loading of gasoline storage tanks at gasoline dispensing facilities (GDF). This subpart also establishes requirements to demonstrate compliance with the emission limitations and management practices. 40 CFR §63.11111 - <u>Am I subject to the requirements in this subpart?</u> “(a) The affected source to which this subpart applies is each GDF that is located at an area source. The affected source includes each gasoline cargo tank during the delivery of product to a GDF and also includes each storage tank. (b) If your GDF has a monthly throughput of less than 10,000 gallons of gasoline, you must comply with the requirements in §63.11116.

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Table IV – 5a: MACT

(c) If your GDF has a monthly throughput of 10,000 gallons of gasoline or more, you must comply with the requirements in §63.11117.”

40 CFR §63.11116 - Requirements for facilities with monthly throughput of less than 10,000 gallons of gasoline.

“(a) You must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

- (1) Minimize gasoline spills;
- (2) Clean up spills as expeditiously as practicable;
- (3) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;
- (4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

(b) You are not required to submit notifications or reports as specified in §63.11125, §63.11126, or subpart A of this part, but you must have records available within 24 hours of a request by the Administrator to document your gasoline throughput.

(c) You must comply with the requirements of this subpart by the applicable dates specified in §63.11113.

(d) Portable gasoline containers that meet the requirements of 40 CFR part 59, subpart F, are considered acceptable for compliance with paragraph (a)(3) of this section.”

40 CFR §63.11117 - Requirements for facilities with monthly throughput of 10,000 gallons of gasoline or more.

“(a) You must comply with the requirements in section §63.11116(a).

(b) Except as specified in paragraph (c) of this section, you must only load gasoline into storage tanks at your facility by utilizing submerged filling, as defined in §63.11132, and as specified in paragraphs (b)(1), (b)(2), or (b)(3) of this section. The applicable distances in paragraphs (b)(1) and (2) shall be measured from the point in the opening of the submerged fill pipe that is the greatest distance from the bottom of the storage tank.

(1) Submerged fill pipes installed on or before November 9, 2006, must be no more than 12 inches from the bottom of the tank.

(2) Submerged fill pipes installed after November 9, 2006, must be no more than 6 inches from the bottom of the tank.

(3) Submerged fill pipes not meeting the specifications of paragraphs (b)(1) or (b)(2) of this section are allowed if the owner or operator can demonstrate that the liquid level in the tank is always above the entire

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Table IV – 5a: MACT	
	<p>opening of the fill pipe. Documentation providing such demonstration must be made available for inspection by the Administrator's delegated representative during the course of a site visit.</p> <p>(c) Gasoline storage tanks with a capacity of less than 250 gallons are not required to comply with the submerged fill requirements in paragraph (b) of this section but must comply only with all of the requirements in §63.11116.</p> <p>(d) You must have records available within 24 hours of a request by the Administrator to document your gasoline throughput.</p> <p>(e) You must submit the applicable notifications as required under §63.11124(a).</p> <p>(f) You must comply with the requirements of this subpart by the applicable dates contained in §63.11113.”</p>
5a.2	<p><u>Testing Requirements:</u></p> <p><u>Control of HAPs:</u> See Monitoring Requirements.</p>
5a.3	<p><u>Monitoring Requirements:</u></p> <p><u>Control of HAPs:</u> The Permittee must monitor and record monthly gasoline throughput. [Reference: COMAR 26.11.03.06C]</p>
5a.4	<p><u>Record Keeping Requirements:</u></p> <p><u>Control of HAPs:</u> “You must have records available within 24 hours of a request by the Administrator to document your gasoline throughput.” [Reference: 40 CFR §63.11117(d)]</p>
5a.5	<p><u>Reporting Requirements:</u></p> <p><u>Control of HAPs:</u> “You must submit the applicable notifications as required under §63.11124(a).” [Reference: 40 CFR §63.11117(e)]</p> <p>§63.11124(a)(3) – “ If, prior to January 10, 2008, you are operating in compliance with an enforceable State, local, or tribal rule or permit that requires submerged fill as specified in §63.11117(b), you are not</p>

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Table IV – 5a: MACT	
	<i>required to submit an Initial Notification or a Notification of Compliance Status under paragraph (a)(1) or paragraph (a)(2) of this section.”</i>

A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.

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SECTION V INSIGNIFICANT ACTIVITIES

This section provides a list of insignificant emissions units that were reported in the Title V permit application. The applicable Clean Air Act requirements, if any, are listed below the insignificant activity.

- (1) No. 17 Fuel burning equipment using gaseous fuels or no. 1 or no. 2 fuel oil, and having a heat input less than 1,000,000 Btu (1.06 gigajoules) per hour;

[For Areas III and IV]

The affected fuel burning units are subject to the following requirements:

COMAR 26.11.09.05A(2), which establishes that the Permittee may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers.

Exceptions: COMAR 26.11.09.05A(2) does not apply to emissions during load changing, soot blowing, start-up, or adjustments or occasional cleaning of control equipment if:

- (a) The visible emissions are not greater than 40 percent opacity; and
- (b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period.

[For Distillate Fuel Oil]

COMAR 26.11.09.07A(2)(b), which establishes that the Permittee may not burn, sell, or make available for sale any distillate fuel with a sulfur content by weight in excess of 0.3 percent.

- (2) No. 37 Stationary internal combustion engines with an output less than 500 brake horsepower (373 kilowatts) and which are not used to generate electricity for sale or for peak or load shaving;

The specify affected units are subject to the following requirements:

- (A) COMAR 26.11.09.05E(2), Emissions During Idle Mode:
The Permittee may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.

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(B) COMAR 26.11.09.05E(3), Emissions During Operating Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.

(C) Exceptions:

(i) COMAR 26.11.09.05E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.

(ii) COMAR 26.11.09.05E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:

(a) Engines that are idled continuously when not in service: 30 minutes.

(b) all other engines: 15 minutes.

(iii) COMAR 26.11.09.05E(2) & (3) do not apply while maintenance, repair or testing is being performed by qualified mechanics.

(3) Space heaters utilizing direct heat transfer and used solely for comfort heat;

(4) Containers, reservoirs, or tanks used exclusively for:

(a) No. 93 Storage of lubricating oils;

(b) No. 84 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;

For the following, attach additional pages as necessary:

(5) any other emissions unit at the facility which is not subject to an applicable requirement of the Clean Air Act (list and describe):

No. 3 Parts Washers

No. 1 BWI Training Fires (EU-08)

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SECTION VI STATE-ONLY ENFORCEABLE CONDITIONS

The Permittee is subject to the following State-only enforceable requirements:

1. Applicable Regulations:

- (a) COMAR 26.11.06.08 - Nuisance. "An installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be construed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution."
- (b) COMAR 26.11.06.09 – Odors. "A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that nuisance or air pollution is created."

2. Record Keeping and Reporting:

The Permittee shall submit to the Department, by April 1 of each year during the term of this permit, a written certification of the results of an analysis of emissions of toxic air pollutants from the Permittee's facility during the previous calendar year. The analysis shall include either:

- (a) a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or
- (b) a revised compliance demonstration, developed in accordance with requirements included under COMAR 26.11.15 & 16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.



Wes Moore
Governor
Aruna Miller
Lieutenant Governor
James F. Ports, Jr.
Secretary
Ricky D. Smith, Sr.
Executive Director

January 24, 2023

Suna Sariscak
Manager, Air Quality Permits Program
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, MD 21230-1718

**Subject: Baltimore Washington International Thurgood Marshall Airport (BWI Marshall)
Title V Part 70 Operating Permit Renewal Application**

Dear Ms. Sariscak,

The Maryland Department of Transportation Maryland Aviation Administration (MDOT MAA) hereby submits this application for renewal of BWI Marshall's Title V permit. BWI has been operating under Title V (Part 70) Permit 24-003-00208 which was issued February 1, 2019 and will expire on January 31, 2024. Per Maryland requirements, this renewal application is being submitted at least 12 months prior to permit expiration. Pursuant to this timely submission, MDOT MAA is requesting an application shield.

This submittal includes two (2) hardcopies and one (1) electronic copy of the renewal application package, prepared in accordance with the Department's most recent version (October 2017) of Title V renewal instructions and signed by a Responsible Official for MDOT MAA. Included within this application are all attachments required for a complete renewal application submittal as well as a mark-up of the current permit with requested changes. MDOT MAA requests confirmation no later than December 31, 2022 that this application is administratively complete.

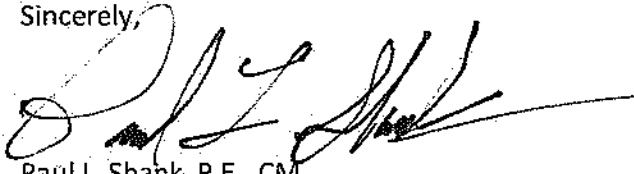
The following registrations were issued for "off-permit" changes and have been included in this application:

- No. 003-0208-5-0880 (KN-30 Boiler - EU-33)
- No. 003-0208-5-0881 (KN-30 Boiler - EU-34)

Through this renewal, MAA is requesting removal of the reference to the Stage II recovery system currently included within the description of EU-7. The Stage II recovery system was decommissioned on February 28, 2017 per COMAR 26.11.24.03-1. Permit conditions related to the Stage II recovery system were previously removed from the permit.

If you have any questions or comments regarding this application, please contact Mr. Mark Williams, Manager, Environmental Compliance Section at 410-859-7448 or via email at mwilliams1@bwairport.com or you may contact Jennifer Ehrhardt, Project Manager, AECOM at 607-206-0993 or via email at jennifer.ehrhardt@aecom.com. Thank you for your attention to this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Paul L. Shank", with a long horizontal flourish extending to the right.

Paul L. Shank, P.E., CM
Chief Engineer
Facilities Development and Engineering

cc: Mr. Mark Williams, Manager, Environmental Compliance Section, MDOT MAA
Ms. Jennifer Ehrhardt, Project Manager, AECOM



Environment

Prepared for:
Maryland Department of Transportation
Maryland Aviation Administration
BWI Airport
Baltimore, MD

Prepared by:
AECOM
Conshohocken, PA
December 2022

Part 70 Permit Application for Renewal BWI Thurgood Marshall Airport



Environment

Prepared for:
Maryland Department of Transportation
Maryland Aviation Administration
BWI Airport
Baltimore, MD

Prepared by:
AECOM
Conshohocken, PA
December 2022

Part 70 Permit Application for Renewal BWI Thurgood Marshall Airport

A handwritten signature in black ink that reads "Jessica Myers". The signature is written in a cursive style.

Prepared By Jessica Myers

A handwritten signature in black ink that reads "Jennifer Ehrhardt". The signature is written in a cursive style.

Reviewed By Jennifer Ehrhardt

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PART 70 PERMIT APPLICATION FOR RENEWAL
AIR AND RADIATION ADMINISTRATION

Facilities required to obtain a Part 70 permit under COMAR 26.11.03.01 must complete and return this form. Applications are incomplete unless all applicable information required by COMAR 26.11.03.03 and 26.11.03.13 is supplied. Failure to supply additional information required by the Department to enable it to act on the application may result in loss of the application shield and denial of this application.

Owner and Operator:

Name of Owner or Operator: Maryland Department of Transportation Maryland Aviation Administration (MDOT MAA)		
Street Address: BWI Thurgood Marshall Airport; PO Box 8766		
City: Baltimore	State: MD	Zip Code: 21240-0766
Telephone Number 410-859-7448	Fax Number 410-859-7288	

Facility Information:

Name of Facility: Baltimore Washington International (BWI) Thurgood Marshall Airport		
Street Address: 761 Elm Road		
City: Linthicum	State: MD	Zip Code: 21090
Plant Manager: Mark Williams	Telephone Number: 410-859-7448	Fax Number: 410-859-7288
24-Hour Emergency Telephone Number for Air Pollution Matters: 443-250-1029		

List, on a separate page, the names and telephone numbers of other facility owners and persons with titles.



Federally Enforcable Requirements

Section 1
Certification Statements

SECTION 1. CERTIFICATION STATEMENTS

1. Compliance Status with Applicable Enhanced Monitoring and Compliance Certification Requirements

The emissions units identified in this application are in compliance with applicable enhanced monitoring and compliance certification requirements.

2. Certification of Current Compliance with All Applicable Federally Enforceable Requirements

Except for the requirements identified in Section 7 of this application, for which compliance is not achieved, I hereby certify, based on information and belief formed after reasonable inquiry, that the facility is currently in compliance with all applicable federally enforceable requirements and agree that the facility will continue to comply with those requirements during the permit term.

You must complete a Section 7 form for each non-complying emissions unit.

3. Statement of Compliance with Respect to All New Applicable Requirements Effective During the Permit Term

I hereby state, based on information and belief formed after reasonable inquiry, that the facility agrees to meet, in a timely manner, all applicable federally enforceable requirements that become effective during the permit term, unless a more detailed schedule is expressly required by the applicable requirement.

4. Risk Management Plan Compliance

I hereby certify that, based on information and belief formed after reasonable inquiry, that a Risk Management Plan as required under §112(r) of the Clean Air Act:

has been submitted;

will be submitted at a future date; or

does not need to be submitted.

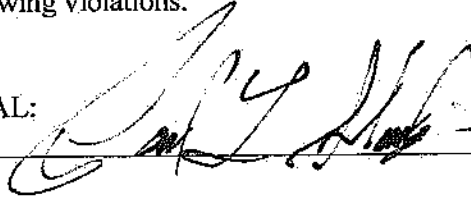


5. Statement of Truth, Accuracy, and Completeness

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision and 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(s) who manage the system, or those persons directly responsible for gathering 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."

RESPONSIBLE OFFICIAL:

X

 11/25/2023

SIGNATURE

DATE

Paul L. Shank, P.E., CM

PRINTED NAME

Chief Engineer, Facilities Development and Engineering

TITLE



Section 2
Facility Description Summary

SECTION 2. FACILITY DESCRIPTION SUMMARY

1. Major Activities of Facility

Briefly describe the major activities, including the applicable SIC Code(s) and end product(s).

Baltimore Washington International (BWI) Thurgood Marshall Airport is a large hub commercial airport, ranked 22nd in the United States based on passenger volume. The Standard Industrial Classification (SIC) code for the facility is 4581 - Airports, Flying Fields, and Airport Terminal Services. Occupying 3,596 acres in northern Anne Arundel County, Maryland, the facility is owned by the Maryland Department of Transportation (MDOT) and operated by the Maryland Aviation Administration (MAA). Air carriers using the facility include 36 commercial, commuter, charter, and cargo airlines engaged in an average of 608 flight operations daily. An average exceeding 51,000 passengers per day are served by a single terminal building with 4 domestic and 1 international concourse, comprising approximately 2 million square feet. Inter-modal transportation services at the site include multiple parking facilities with associated shuttle buses, an AMTRAK station, and Light-Rail stops. MDOT MAA, tenant, and contractor employees working at BWI exceed 10,000. Significant stationary sources of air pollution at BWI include fossil fuel-fired boilers at the Central Utility Plant, smaller boilers located in the Terminal Building, standby emergency generators, fuel storage, and training fires.

2. Facility-Wide Emissions

A. This facility is required to obtain a Part 70 Operating Permit because it is:
Check appropriate box:

- Actual Major
- Potential Major
- Solid Waste Incineration Unit Requiring Permit Under § 129(e) of CAA

B. List the actual facility-wide emissions below:

PM10 3.09 NOx 20.74 VOC 9.72 SOx 0.15 CO 12.52 HAPs 0.15

3. Include With the Application:

Flow Diagrams showing all emissions units, emission points, and control devices;
Emissions Certification Report (copy of the most recent submitted to the Department.)



Section 3A
Emissions Unit Descriptions

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

<p>1. Emissions Unit No.: EU-1</p> <p>1a. Date of installation (month/year): 2003</p>	<p>2. MDE Registration No.:(if applicable) 003-0208-5-0681</p>												
<p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <hr/> <p>BWI Airport Central Utility Plant - Boiler #1</p> <hr/> <p>One (1) Indeck natural gas / No. 2 fuel oil-fired boiler rated at 55 MMBtu/hr heat input, producing HTHW.</p> <p>Emission Point: EP-1</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>													
<p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None</p> <p>General Reference: _____</p> <p>Continuous Processes: _____ hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p style="padding-left: 100px;">_____ days/year</p>													
<p>5. Fuel Consumption:</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;">Type(s) of Fuel</th> <th style="width:30%;">% Sulfur</th> <th style="width:40%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Natural Gas</td> <td>negligible</td> <td>45.94 MMcf/yr</td> </tr> <tr> <td>2. No. 2 Fuel Oil</td> <td><0.3%</td> <td>0.96 Mgal/yr</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table>		Type(s) of Fuel	% Sulfur	Annual Usage (specify units)	1. Natural Gas	negligible	45.94 MMcf/yr	2. No. 2 Fuel Oil	<0.3%	0.96 Mgal/yr	3. _____	_____	_____
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)											
1. Natural Gas	negligible	45.94 MMcf/yr											
2. No. 2 Fuel Oil	<0.3%	0.96 Mgal/yr											
3. _____	_____	_____											
<p>6. Emissions in Tons:</p> <p>A. Actual Major: <u>No</u> Potential Major: <u>No</u> (note: before control device)</p> <p>B. Actual Emissions: NO_x <u>5.64</u> SO_x <u>0.01</u> VOC <u>0.13</u> PM10 <u>0.04</u> HAPs <u>0.04</u></p>													



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: EU-2 1a. Date of installation (month/year): 2003	2. MDE Registration No.:(if applicable) 003-0208-5-0682												
3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): <hr/> BWI Airport Central Utility Plant - Boiler #2 <hr/> One (1) Indeck natural gas / No. 2 fuel oil-fired boiler rated at 55 MMBtu/hr heat input, producing HTHW. Emission Point: EP-2 <hr/> <hr/> <hr/>													
4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None General Reference: _____ Continuous Processes: _____ hours/day _____ days/year Batch Processes: _____ hours/batch _____ batches/day _____ days/year													
5. Fuel Consumption: <table style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th style="width: 30%;">Type(s) of Fuel</th> <th style="width: 30%;">% Sulfur</th> <th style="width: 40%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Natural Gas</td> <td>negligible</td> <td>45.94 MMcf/yr</td> </tr> <tr> <td>2. No. 2 Fuel Oil</td> <td><0.3%</td> <td>0.96 Mgal/yr</td> </tr> <tr> <td>3. _____</td> <td></td> <td></td> </tr> </tbody> </table>		Type(s) of Fuel	% Sulfur	Annual Usage (specify units)	1. Natural Gas	negligible	45.94 MMcf/yr	2. No. 2 Fuel Oil	<0.3%	0.96 Mgal/yr	3. _____		
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)											
1. Natural Gas	negligible	45.94 MMcf/yr											
2. No. 2 Fuel Oil	<0.3%	0.96 Mgal/yr											
3. _____													
6. Emissions in Tons: <table style="width: 100%; margin-top: 5px;"> <tr> <td style="width: 50%;">A. Actual Major: <u>No</u></td> <td>Potential Major: <u>No</u> (note: before control device)</td> </tr> <tr> <td colspan="2">B. Actual Emissions: NOx <u>4.78</u> SOx <u>0.01</u> VOC <u>0.13</u> PM10 <u>0.04</u> HAPs <u>0.04</u></td> </tr> </table>		A. Actual Major: <u>No</u>	Potential Major: <u>No</u> (note: before control device)	B. Actual Emissions: NOx <u>4.78</u> SOx <u>0.01</u> VOC <u>0.13</u> PM10 <u>0.04</u> HAPs <u>0.04</u>									
A. Actual Major: <u>No</u>	Potential Major: <u>No</u> (note: before control device)												
B. Actual Emissions: NOx <u>4.78</u> SOx <u>0.01</u> VOC <u>0.13</u> PM10 <u>0.04</u> HAPs <u>0.04</u>													



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

<p>1. Emissions Unit No.: EU-3</p> <p>1a. Date of installation (month/year): 1995</p>	<p>2. MDE Registration No.:(if applicable) 003-0208-5-0683</p>												
<p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <hr/> <p>BWI Airport Central Utility Plant - Boiler #3</p> <hr/> <p>One (1) Indeck natural gas / No. 2 fuel oil-fired boiler rated at 25 MMBtu/hr heat input, producing HTHW.</p> <p>Emission Point: EP-3</p> <hr/> <hr/> <hr/> <hr/> <hr/>													
<p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None</p> <p>General Reference: _____</p> <p>Continuous Processes: _____ hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p>_____ days/year</p>													
<p>5. Fuel Consumption:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Type(s) of Fuel</th> <th style="text-align: left;">% Sulfur</th> <th style="text-align: left;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Natural Gas</td> <td>negligible</td> <td>20.88 MMcf/yr</td> </tr> <tr> <td>2. No. 2 Fuel Oil</td> <td><0.3%</td> <td>0.44 Mgal/yr</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table>		Type(s) of Fuel	% Sulfur	Annual Usage (specify units)	1. Natural Gas	negligible	20.88 MMcf/yr	2. No. 2 Fuel Oil	<0.3%	0.44 Mgal/yr	3. _____	_____	_____
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)											
1. Natural Gas	negligible	20.88 MMcf/yr											
2. No. 2 Fuel Oil	<0.3%	0.44 Mgal/yr											
3. _____	_____	_____											
<p>6. Emissions in Tons:</p> <p>A. Actual Major: <u>No</u> Potential Major: <u>No</u> (note: before control device)</p> <p>B. Actual Emissions: NO_x <u>1.87</u> SO_x <u>0.01</u> VOC <u>0.06</u> PM₁₀ <u>0.02</u> HAPs <u>0.02</u></p>													



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

<p>1. Emissions Unit No.: EU-4</p> <p>1a. Date of installation (month/year): 2003</p>	<p>2. MDE Registration No.:(if applicable) 003-0208-9-0916</p>												
<p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <hr/> <p>BWI Airport Pier D - Front of Terminal Building - Emergency Generator</p> <hr/> <p>One(1) Spectrum 500DS4 505 kW diesel-fired standby emergency generator used for electricity generation.</p> <hr/> <p>Emission Point No.: EP-4</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>													
<p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None</p> <p>General Reference: _____</p> <p>Continuous Processes: _____ hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p>_____ days/year</p>													
<p>5. Fuel Consumption:</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:35%;">Type(s) of Fuel</th> <th style="width:30%;">% Sulfur</th> <th style="width:35%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Diesel</td> <td>0.0015%</td> <td>1.80 Mgal/yr</td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table>		Type(s) of Fuel	% Sulfur	Annual Usage (specify units)	1. Diesel	0.0015%	1.80 Mgal/yr	2. _____	_____	_____	3. _____	_____	_____
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)											
1. Diesel	0.0015%	1.80 Mgal/yr											
2. _____	_____	_____											
3. _____	_____	_____											
<p>6. Emissions in Tons:</p> <p>A. Actual Major: <u>No</u> Potential Major: <u>No</u> (note: before control device)</p> <p>B. Actual Emissions: NO_x <u>0.40</u> SO_x <u>0.00</u> VOC <u>0.01</u> PM₁₀ <u>0.01</u> HAPs <u>0.0002</u></p>													



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: EU-5 1a. Date of installation (month/year): 2003	2. MDE Registration No.:(if applicable) 003-0208-9-0910												
3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): _____ BWI Airport Daily Parking Garage - Emergency Generator _____ One(1) Caterpillar SR4 750 kW diesel-fired standby emergency generator used for electricity generation. _____ Emission Point No.: EP-5 _____ _____ _____ _____ _____													
4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None General Reference: _____ Continuous Processes: _____ hours/day _____ days/year Batch Processes: _____ hours/batch _____ batches/day _____ days/year													
5. Fuel Consumption: <table border="1"><thead><tr><th>Type(s) of Fuel</th><th>% Sulfur</th><th>Annual Usage (specify units)</th></tr></thead><tbody><tr><td>1. Diesel</td><td>0.0015%</td><td>2.37 Mgal/yr</td></tr><tr><td>2. _____</td><td></td><td></td></tr><tr><td>3. _____</td><td></td><td></td></tr></tbody></table>		Type(s) of Fuel	% Sulfur	Annual Usage (specify units)	1. Diesel	0.0015%	2.37 Mgal/yr	2. _____			3. _____		
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)											
1. Diesel	0.0015%	2.37 Mgal/yr											
2. _____													
3. _____													
6. Emissions in Tons: A. Actual Major: <u>No</u> Potential Major: <u>No</u> (note: before control device) B. Actual Emissions: NOx <u>0.53</u> SOx <u>0.00</u> VOC <u>0.01</u> PM10 <u>0.01</u> HAPs <u>0.0003</u>													



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: EU-6 1a. Date of installation (month/year): 2005	2. MDE Registration No.:(if applicable) 003-0208-9-0914												
3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): _____ BWI Airport Pier A - Emergency Generator _____ One (1) Caterpillar 1207 bhp (900 kW) diesel-fired standby emergency generator used for electricity generation. _____ Emission Point No.: EP-6 _____ _____ _____ _____ _____													
4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None General Reference: _____ Continuous Processes: _____ hours/day _____ days/year Batch Processes: _____ hours/batch _____ batches/day _____ days/year													
5. Fuel Consumption: <table><thead><tr><th>Type(s) of Fuel</th><th>% Sulfur</th><th>Annual Usage (specify units)</th></tr></thead><tbody><tr><td>1. Diesel</td><td>0.0015%</td><td>2.71 Mgal/yr</td></tr><tr><td>2. _____</td><td>_____</td><td>_____</td></tr><tr><td>3. _____</td><td>_____</td><td>_____</td></tr></tbody></table>		Type(s) of Fuel	% Sulfur	Annual Usage (specify units)	1. Diesel	0.0015%	2.71 Mgal/yr	2. _____	_____	_____	3. _____	_____	_____
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)											
1. Diesel	0.0015%	2.71 Mgal/yr											
2. _____	_____	_____											
3. _____	_____	_____											
6. Emissions in Tons: A. Actual Major: <u>No</u> Potential Major: <u>No</u> (note: before control device) B. Actual Emissions: NOx <u>0.61</u> SOx <u>0.00</u> VOC <u>0.02</u> PM10 <u>0.01</u> HAPs <u>0.0003</u>													



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

<p>1. Emissions Unit No.: EU-7</p> <p>1a. Date of installation (month/year): 2005</p>	<p>2. MDE Registration No.:(if applicable) 003-0208-9-0894</p>												
<p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <hr/> <p>BWI Airport Field Maintenance Building 116 - Storage Tank</p> <hr/> <p>Motor gasoline storage tank (8,000 gal gas UST, Stage I)</p> <hr/> <p>Emission Point No.: EP-7</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>													
<p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None</p> <p>General Reference: _____</p> <p>Continuous Processes: _____ hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p>_____ days/year</p>													
<p>5. Fuel Consumption:</p> <table border="1"> <thead> <tr> <th>Type(s) of Fuel</th> <th>% Sulfur</th> <th>Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Motor Gasoline</td> <td>0.0010%</td> <td>142,366 gal/yr (throughput)</td> </tr> <tr> <td>2. _____</td> <td></td> <td></td> </tr> <tr> <td>3. _____</td> <td></td> <td></td> </tr> </tbody> </table>		Type(s) of Fuel	% Sulfur	Annual Usage (specify units)	1. Motor Gasoline	0.0010%	142,366 gal/yr (throughput)	2. _____			3. _____		
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)											
1. Motor Gasoline	0.0010%	142,366 gal/yr (throughput)											
2. _____													
3. _____													
<p>6. Emissions in Tons:</p> <p>A. Actual Major: <u>No</u> Potential Major: <u>No</u> (note: before control device)</p> <p>B. Actual Emissions: NO_x <u>N/A</u> SO_x <u>N/A</u> VOC <u>0.68</u> PM10 <u>N/A</u> HAPs <u>N/A</u></p>													



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: EU-8 1a. Date of installation (month/year): 1988	2. MDE Registration No.:(if applicable) N/A												
3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): _____ BWI Airport Training Fires _____ Use of Jet A fuel to simulate fires from burning aircraft during an emergency for training of airport fire and rescue staff. _____ Emission Point No.: EP-8 _____ _____ _____ _____													
4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None General Reference: _____ Continuous Processes: _____ hours/day _____ days/year Batch Processes: _____ hours/batch _____ batches/day _____ days/year													
5. Fuel Consumption: <table border="1"><thead><tr><th>Type(s) of Fuel</th><th>% Sulfur</th><th>Annual Usage (specify units)</th></tr></thead><tbody><tr><td>1. Jet A Fuel</td><td>0.3%</td><td>28,838 gal/yr</td></tr><tr><td>2. _____</td><td></td><td></td></tr><tr><td>3. _____</td><td></td><td></td></tr></tbody></table>		Type(s) of Fuel	% Sulfur	Annual Usage (specify units)	1. Jet A Fuel	0.3%	28,838 gal/yr	2. _____			3. _____		
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)											
1. Jet A Fuel	0.3%	28,838 gal/yr											
2. _____													
3. _____													
6. Emissions in Tons: A. Actual Major: <u>No</u> Potential Major: <u>No</u> (note: before control device) B. Actual Emissions: NOx <u>0.14</u> SOx <u>0.10</u> VOC <u>8.43</u> PM10 <u>2.80</u> HAPs <u>N/A</u>													



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

<p>1. Emissions Unit No.: EU-31</p> <p>1a. Date of installation (month/year): 2014</p>	<p>2. MDE Registration No.:(if applicable) 003-0208-4-0886</p>												
<p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <hr/> <p>BWI Airport Building 123 - Boiler</p> <hr/> <p>One (1) Smith No. 2 fuel oil-fired boiler rated at 3.22 MMBtu/hr used for heat and process steam.</p> <hr/> <p>Emission Point No.: EP-31</p> <hr/> <hr/> <hr/> <hr/> <hr/>													
<p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None</p> <p>General Reference:_____</p> <p>Continuous Processes: _____ hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p style="padding-left: 100px;">_____ days/year</p>													
<p>5. Fuel Consumption:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Type(s) of Fuel</th> <th style="width: 30%;">% Sulfur</th> <th style="width: 40%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. No. 2 Fuel Oil</td> <td><0.3%</td> <td>9.37 Mgal/yr</td> </tr> <tr> <td>2. _____</td> <td></td> <td></td> </tr> <tr> <td>3. _____</td> <td></td> <td></td> </tr> </tbody> </table>		Type(s) of Fuel	% Sulfur	Annual Usage (specify units)	1. No. 2 Fuel Oil	<0.3%	9.37 Mgal/yr	2. _____			3. _____		
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)											
1. No. 2 Fuel Oil	<0.3%	9.37 Mgal/yr											
2. _____													
3. _____													
<p>6. Emissions in Tons:</p> <p>A. Actual Major: <u>No</u> Potential Major: <u>No</u> (note: before control device)</p> <p>B. Actual Emissions: NOx <u>0.09</u> SOx <u>0.00</u> VOC <u>0.00</u> PM10 <u>0.00</u> HAPs <u>0.0002</u></p>													



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

<p>1. Emissions Unit No.: EU-10</p> <p>1a. Date of installation (month/year): 1997</p>	<p>2. MDE Registration No.:(if applicable) 003-0208-9-0912</p>												
<p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <hr/> <p>BWI Airport International Terminal Roof - Emergency Generator</p> <hr/> <p>One (1) Caterpillar SR4B 600 kW diesel-fired standby emergency generator used for electricity generation.</p> <hr/> <p>Emission Point No.: EP-10</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>													
<p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None</p> <p>General Reference:_____</p> <p>Continuous Processes: _____ hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p>_____ days/year</p>													
<p>5. Fuel Consumption:</p> <table border="1"> <thead> <tr> <th>Type(s) of Fuel</th> <th>% Sulfur</th> <th>Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Diesel</td> <td>0.0015%</td> <td>2.50 Mgal/yr</td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table>		Type(s) of Fuel	% Sulfur	Annual Usage (specify units)	1. Diesel	0.0015%	2.50 Mgal/yr	2. _____	_____	_____	3. _____	_____	_____
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)											
1. Diesel	0.0015%	2.50 Mgal/yr											
2. _____	_____	_____											
3. _____	_____	_____											
<p>6. Emissions in Tons:</p> <p>A. Actual Major: <u>No</u> Potential Major: <u>No</u> (note: before control device)</p> <p>B. Actual Emissions: NOx <u>0.56</u> SOx <u>0.00</u> VOC <u>0.01</u> PM10 <u>0.01</u> HAPs <u>0.0003</u></p>													



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

<p>1. Emissions Unit No.: EU-11</p> <p>1a. Date of installation (month/year): 2006</p>	<p>2. MDE Registration No.:(if applicable) 003-0208-9-0913</p>												
<p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <hr/> <p>BWI Airport MAC Building - Emergency Generator</p> <hr/> <p>One (1) Kohler 644 bhp (410 kW) diesel-fired standby emergency generator used for electricity generation.</p> <hr/> <p>Emission Point No.: EP-11</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>													
<p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None</p> <p>General Reference:_____</p> <p>Continuous Processes: _____ hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p>_____ days/year</p>													
<p>5. Fuel Consumption:</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Type(s) of Fuel</th> <th style="text-align: center;">% Sulfur</th> <th style="text-align: right;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Diesel</td> <td align="center">0.0015%</td> <td align="right">1.25 Mgal/yr</td> </tr> <tr> <td>2. _____</td> <td></td> <td></td> </tr> <tr> <td>3. _____</td> <td></td> <td></td> </tr> </tbody> </table>		Type(s) of Fuel	% Sulfur	Annual Usage (specify units)	1. Diesel	0.0015%	1.25 Mgal/yr	2. _____			3. _____		
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)											
1. Diesel	0.0015%	1.25 Mgal/yr											
2. _____													
3. _____													
<p>6. Emissions in Tons:</p> <p>A. Actual Major: <u>No</u> Potential Major: <u>No</u> (note: before control device)</p> <p>B. Actual Emissions: NO_x <u>0.39</u> SO_x <u>0.00</u> VOC <u>0.03</u> PM₁₀ <u>0.03</u> HAPs <u>0.0003</u></p>													



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: EU-13 1a. Date of installation (month/year): 1996	2. MDE Registration No.:(if applicable) 003-0208-9-0911												
3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): _____ BWI Airport Hourly Parking Garage - Emergency Generator _____ One (1) Onan 600 kW diesel-fired standby emergency generator used for electricity generation. _____ Emission Point No.: EP-13 _____ _____ _____ _____ _____													
4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None General Reference: _____ Continuous Processes: _____ hours/day _____ days/year Batch Processes: _____ hours/batch _____ batches/day _____ days/year													
5. Fuel Consumption: <table border="1"><thead><tr><th>Type(s) of Fuel</th><th>% Sulfur</th><th>Annual Usage (specify units)</th></tr></thead><tbody><tr><td>1. Diesel</td><td>0.0015%</td><td>1.61 Mgal/yr</td></tr><tr><td>2. _____</td><td>_____</td><td>_____</td></tr><tr><td>3. _____</td><td>_____</td><td>_____</td></tr></tbody></table>		Type(s) of Fuel	% Sulfur	Annual Usage (specify units)	1. Diesel	0.0015%	1.61 Mgal/yr	2. _____	_____	_____	3. _____	_____	_____
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)											
1. Diesel	0.0015%	1.61 Mgal/yr											
2. _____	_____	_____											
3. _____	_____	_____											
6. Emissions in Tons: A. Actual Major: <u>No</u> Potential Major: <u>No</u> (note: before control device) B. Actual Emissions: NOx <u>0.36</u> SOx <u>0.00</u> VOC <u>0.01</u> PM10 <u>0.01</u> HAPs <u>0.0002</u>													



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: EU-14 1a. Date of installation (month/year): 2005	2. MDE Registration No.:(if applicable) 003-0208-9-0915												
3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): <hr/> BWI Airport Pier A Triturator - Emergency Generator <hr/> One (1) Generac 671 bhp (500 kW) diesel-fired standby emergency generator used for electricity generation. <hr/> Emission Point No.: EP-14 <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>													
4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None General Reference: _____ Continuous Processes: _____ hours/day _____ days/year Batch Processes: _____ hours/batch _____ batches/day _____ days/year													
5. Fuel Consumption: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Type(s) of Fuel</th> <th style="text-align: left;">% Sulfur</th> <th style="text-align: left;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Diesel</td> <td>0.0015%</td> <td>0.78 Mgal/yr</td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table>		Type(s) of Fuel	% Sulfur	Annual Usage (specify units)	1. Diesel	0.0015%	0.78 Mgal/yr	2. _____	_____	_____	3. _____	_____	_____
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)											
1. Diesel	0.0015%	0.78 Mgal/yr											
2. _____	_____	_____											
3. _____	_____	_____											
6. Emissions in Tons: A. Actual Major: <u>No</u> Potential Major: <u>No</u> (note: before control device) B. Actual Emissions: NOx <u>0.17</u> SOx <u>0.00</u> VOC <u>0.00</u> PM10 <u>0.00</u> HAPs <u>0.0001</u>													



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: EU-15 1a. Date of installation (month/year): 2008	2. MDE Registration No.:(if applicable) 003-0208-9-0948												
3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): _____ BWI Airport International Terminal LL - Emergency Generator _____ One (1) Katolight 1495 bhp (900 kW) diesel-fired standby emergency generator used for electricity generation. _____ Emission Point No.: EP-15 _____ _____ _____ _____ _____													
4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None General Reference: _____ Continuous Processes: _____ hours/day _____ days/year Batch Processes: _____ hours/batch _____ batches/day _____ days/year													
5. Fuel Consumption: <table border="1"><thead><tr><th>Type(s) of Fuel</th><th>% Sulfur</th><th>Annual Usage (specify units)</th></tr></thead><tbody><tr><td>1. Diesel</td><td>0.0015%</td><td>2.32 Mgal/yr</td></tr><tr><td>2. _____</td><td>_____</td><td>_____</td></tr><tr><td>3. _____</td><td>_____</td><td>_____</td></tr></tbody></table>		Type(s) of Fuel	% Sulfur	Annual Usage (specify units)	1. Diesel	0.0015%	2.32 Mgal/yr	2. _____	_____	_____	3. _____	_____	_____
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)											
1. Diesel	0.0015%	2.32 Mgal/yr											
2. _____	_____	_____											
3. _____	_____	_____											
6. Emissions in Tons: A. Actual Major: <u>No</u> Potential Major: <u>No</u> (note: before control device) B. Actual Emissions: NOx <u>0.52</u> SOx <u>0.00</u> VOC <u>0.01</u> PM10 <u>0.01</u> HAPs <u>0.0003</u>													



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

<p>1. Emissions Unit No.: EU-16</p> <p>1a. Date of installation (month/year): 2011</p>	<p>2. MDE Registration No.:(if applicable) 003-0208-9-1030</p>												
<p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <hr/> <p>BWI Airport CDC - Emergency Generator</p> <hr/> <p>One (1) Detroit Diesel 2000 kW diesel-fired standby emergency generator used for electricity generation.</p> <hr/> <p>Emission Point No.: EP-16</p> <hr/> <hr/> <hr/> <hr/> <hr/>													
<p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None</p> <p>General Reference: _____</p> <p>Continuous Processes: _____ hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p style="padding-left: 150px;">_____ days/year</p>													
<p>5. Fuel Consumption:</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;">Type(s) of Fuel</th> <th style="width:20%;">% Sulfur</th> <th style="width:40%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Diesel</td> <td>0.0015%</td> <td>6.71 Mgal/yr</td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table>		Type(s) of Fuel	% Sulfur	Annual Usage (specify units)	1. Diesel	0.0015%	6.71 Mgal/yr	2. _____	_____	_____	3. _____	_____	_____
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)											
1. Diesel	0.0015%	6.71 Mgal/yr											
2. _____	_____	_____											
3. _____	_____	_____											
<p>6. Emissions in Tons:</p> <p>A. Actual Major: <u>No</u> Potential Major: <u>No</u> (note: before control device)</p> <p>B. Actual Emissions: NOx <u>1.50</u> SOx <u>0.00</u> VOC <u>0.04</u> PM10 <u>0.03</u> HAPs <u>0.0008</u></p>													



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

<p>1. Emissions Unit No.: EU-17</p> <p>1a. Date of installation (month/year): 2012</p>	<p>2. MDE Registration No.:(if applicable) 003-0208-9-1053</p>												
<p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <hr/> <p>BWI Airport Central Utility Plant - Emergency Generator</p> <hr/> <p>One (1) Baldor 2000 kW diesel-fired standby emergency generator used for electricity generation.</p> <hr/> <p>Emission Point No.: EP-17</p> <hr/> <hr/> <hr/> <hr/> <hr/>													
<p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None</p> <p>General Reference:_____</p> <p>Continuous Processes: _____ hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p> _____ days/year</p>													
<p>5. Fuel Consumption:</p> <table border="1"> <thead> <tr> <th>Type(s) of Fuel</th> <th>% Sulfur</th> <th>Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Diesel</td> <td>0.0015%</td> <td>0.86 Mgal/yr</td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table>		Type(s) of Fuel	% Sulfur	Annual Usage (specify units)	1. Diesel	0.0015%	0.86 Mgal/yr	2. _____	_____	_____	3. _____	_____	_____
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)											
1. Diesel	0.0015%	0.86 Mgal/yr											
2. _____	_____	_____											
3. _____	_____	_____											
<p>6. Emissions in Tons:</p> <p>A. Actual Major: <u>No</u> Potential Major: <u>No</u> (note: before control device)</p> <p>B. Actual Emissions: NOx <u>0.19</u> SOx <u>0.00</u> VOC <u>0.00</u> PM10 <u>0.00</u> HAPs <u>0.0001</u></p>													



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

<p>1. Emissions Unit No.: EU-18</p> <p>1a. Date of installation (month/year): 2013</p>	<p>2. MDE Registration No.:(if applicable) 003-0208-9-1070</p>												
<p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <hr/> <p>BWI Airport Gate C-2 - Emergency Generator</p> <hr/> <p>One(1) MTU Onsite Energy 900-XC6DT2 900-kW diesel-fired emergency generator used for electricity generation.</p> <hr/> <p>Emission Point No.: EP-18</p> <hr/> <hr/> <hr/> <hr/>													
<p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None</p> <p>General Reference: _____</p> <p>Continuous Processes: _____ hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p>_____ days/year</p>													
<p>5. Fuel Consumption:</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Type(s) of Fuel</th> <th style="text-align: left;">% Sulfur</th> <th style="text-align: left;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Diesel</td> <td>0.0015%</td> <td>2.42 Mgal/yr</td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table>		Type(s) of Fuel	% Sulfur	Annual Usage (specify units)	1. Diesel	0.0015%	2.42 Mgal/yr	2. _____	_____	_____	3. _____	_____	_____
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)											
1. Diesel	0.0015%	2.42 Mgal/yr											
2. _____	_____	_____											
3. _____	_____	_____											
<p>6. Emissions in Tons:</p> <p>A. Actual Major: <u>No</u> Potential Major: <u>No</u> (note: before control device)</p> <p>B. Actual Emissions: NOx <u>0.54</u> SOx <u>0.00</u> VOC <u>0.01</u> PM10 <u>0.01</u> HAPs <u>0.0003</u></p>													



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: EU-19 1a. Date of installation (month/year): 2013	2. MDE Registration No.:(if applicable) 003-0208-5-0769												
3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): <hr/> BWI Airport Concourse E - Boiler #1 <hr/> One (1) Hydrotherm KN-10 natural gas-fired boiler rated at 1.99 MMBtu/hr used for production of HTHW. <hr/> Emission Point No.: EP-19 <hr/> <hr/> <hr/> <hr/> <hr/>													
4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None General Reference: _____ Continuous Processes: _____ hours/day _____ days/year Batch Processes: _____ hours/batch _____ batches/day _____ days/year													
5. Fuel Consumption: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Type(s) of Fuel</th> <th style="width: 20%;">% Sulfur</th> <th style="width: 40%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Natural Gas</td> <td>negligible</td> <td>0.001 MMcf/yr</td> </tr> <tr> <td>2. _____</td> <td></td> <td></td> </tr> <tr> <td>3. _____</td> <td></td> <td></td> </tr> </tbody> </table>		Type(s) of Fuel	% Sulfur	Annual Usage (specify units)	1. Natural Gas	negligible	0.001 MMcf/yr	2. _____			3. _____		
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)											
1. Natural Gas	negligible	0.001 MMcf/yr											
2. _____													
3. _____													
6. Emissions in Tons: A. Actual Major: <u> No </u> Potential Major: <u> No </u> (note: before control device) B. Actual Emissions: NOx <u> 0.00 </u> SOx <u> 0.00 </u> VOC <u> 0.00 </u> PM10 <u> 0.00 </u> HAPs <u> 0.00 </u>													



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: EU-20 1a. Date of installation (month/year): 2013	2. MDE Registration No.:(if applicable) 003-0208-5-0770												
3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): <hr/> BWI Airport Concourse E - Boiler #2 <hr/> One (1) Hydrotherm KN-10 natural gas-fired boiler rated at 1.99 MMBtu/hr used for production of HTHW. <hr/> Emission Point No.: EP-20 <hr/> <hr/> <hr/> <hr/>													
4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None General Reference: _____ Continuous Processes: _____ hours/day _____ days/year Batch Processes: _____ hours/batch _____ batches/day _____ days/year													
5. Fuel Consumption: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 35%; text-align: left;">Type(s) of Fuel</th> <th style="width: 35%; text-align: left;">% Sulfur</th> <th style="width: 30%; text-align: left;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Natural Gas</td> <td>Negligible</td> <td>0.001 MMcf/yr</td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table>		Type(s) of Fuel	% Sulfur	Annual Usage (specify units)	1. Natural Gas	Negligible	0.001 MMcf/yr	2. _____	_____	_____	3. _____	_____	_____
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)											
1. Natural Gas	Negligible	0.001 MMcf/yr											
2. _____	_____	_____											
3. _____	_____	_____											
6. Emissions in Tons: A. Actual Major: <u> No </u> Potential Major: <u> No </u> (note: before control device) B. Actual Emissions: NO _x <u> 0.00 </u> SO _x <u> 0.00 </u> VOC <u> 0.00 </u> PM10 <u> 0.00 </u> HAPs <u> 0.00 </u>													



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: EU-23 1a. Date of installation (month/year): 2013	2. MDE Registration No.:(if applicable) 003-0208-5-0771												
3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): <hr/> BWI Airport Concourse B - Boiler #1 <hr/> One (1) Hydrotherm KN-30 natural gas-fired boiler rated at 3.0 MMBtu/hr used for production of HTHW. <hr/> Emission Point No.: EP-23 <hr/> <hr/> <hr/> <hr/> <hr/>													
4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None General Reference: _____ Continuous Processes: _____ hours/day _____ days/year Batch Processes: _____ hours/batch _____ batches/day _____ days/year													
5. Fuel Consumption: <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Type(s) of Fuel</th> <th style="text-align: left;">% Sulfur</th> <th style="text-align: left;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. <u>Natural Gas</u></td> <td><u>Negligible</u></td> <td><u>6.59 MMcf/yr</u></td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table>		Type(s) of Fuel	% Sulfur	Annual Usage (specify units)	1. <u>Natural Gas</u>	<u>Negligible</u>	<u>6.59 MMcf/yr</u>	2. _____	_____	_____	3. _____	_____	_____
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)											
1. <u>Natural Gas</u>	<u>Negligible</u>	<u>6.59 MMcf/yr</u>											
2. _____	_____	_____											
3. _____	_____	_____											
6. Emissions in Tons: A. Actual Major: <u>No</u> Potential Major: <u>No</u> (note: before control device) B. Actual Emissions: NOx <u>0.16</u> SOx <u>0.00</u> VOC <u>0.02</u> PM10 <u>0.01</u> HAPs <u>0.006</u>													



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

<p>1. Emissions Unit No.: EU-24</p> <p>1a. Date of installation (month/year): 2013</p>	<p>2. MDE Registration No.:(if applicable)</p> <p>003-0208-5-0772</p>												
<p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <hr/> <p>BWI Airport Concourse B - Boiler #2</p> <hr/> <p>One (1) Hydrotherm KN-30 natural gas-fired boiler rated at 3.0 MMBtu/hr used for production of HTHW.</p> <hr/> <p>Emission Point No.: EP-24</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>													
<p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None</p> <p>General Reference: _____</p> <p>Continuous Processes: _____ hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p> _____ days/year</p>													
<p>5. Fuel Consumption:</p> <table border="0" data-bbox="147 1329 1490 1514"> <thead> <tr> <th data-bbox="147 1329 690 1365">Type(s) of Fuel</th> <th data-bbox="722 1329 1079 1365">% Sulfur</th> <th data-bbox="1104 1329 1490 1365">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td data-bbox="147 1371 690 1402">1. <u>Natural Gas</u></td> <td data-bbox="722 1371 1079 1402"><u>Negligible</u></td> <td data-bbox="1104 1371 1490 1402"><u>6.59 MMcf/yr</u></td> </tr> <tr> <td data-bbox="147 1423 690 1455">2. _____</td> <td data-bbox="722 1423 1079 1455">_____</td> <td data-bbox="1104 1423 1490 1455">_____</td> </tr> <tr> <td data-bbox="147 1476 690 1507">3. _____</td> <td data-bbox="722 1476 1079 1507">_____</td> <td data-bbox="1104 1476 1490 1507">_____</td> </tr> </tbody> </table>		Type(s) of Fuel	% Sulfur	Annual Usage (specify units)	1. <u>Natural Gas</u>	<u>Negligible</u>	<u>6.59 MMcf/yr</u>	2. _____	_____	_____	3. _____	_____	_____
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)											
1. <u>Natural Gas</u>	<u>Negligible</u>	<u>6.59 MMcf/yr</u>											
2. _____	_____	_____											
3. _____	_____	_____											
<p>6. Emissions in Tons:</p> <p>A. Actual Major: <u>No</u> Potential Major: <u>No</u> (note: before control device)</p> <p>B. Actual Emissions: NO_x <u>0.16</u> SO_x <u>0.00</u> VOC <u>0.02</u> PM₁₀ <u>0.01</u> HAPs <u>0.006</u></p>													



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

<p>1. Emissions Unit No.: EU-25</p> <p>1a. Date of installation (month/year): 2013</p>	<p>2. MDE Registration No.:(if applicable)</p> <p>003-0208-5-0773</p>												
<p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <hr/> <p>BWI Airport Concourse B - Boiler #3</p> <hr/> <p>One (1) Hydrotherm KN-30 natural gas-fired boiler rated at 3.0 MMBtu/hr used for production of HTHW.</p> <hr/> <p>Emission Point No.: EP-25</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>													
<p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None</p> <p>General Reference: _____</p> <p>Continuous Processes: _____ hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p style="padding-left: 150px;">_____ days/year</p>													
<p>5. Fuel Consumption:</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:40%;">Type(s) of Fuel</th> <th style="width:20%;">% Sulfur</th> <th style="width:40%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Natural Gas</td> <td>Negligible</td> <td>6.59 MMcf/yr</td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table>		Type(s) of Fuel	% Sulfur	Annual Usage (specify units)	1. Natural Gas	Negligible	6.59 MMcf/yr	2. _____	_____	_____	3. _____	_____	_____
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)											
1. Natural Gas	Negligible	6.59 MMcf/yr											
2. _____	_____	_____											
3. _____	_____	_____											
<p>6. Emissions in Tons:</p> <p>A. Actual Major: <u>No</u> Potential Major: <u>No</u> (note: before control device)</p> <p>B. Actual Emissions: NO_x <u>0.16</u> SO_x <u>0.00</u> VOC <u>0.02</u> PM₁₀ <u>0.01</u> HAPs <u>0.006</u></p>													



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: EU-26	2. MDE Registration No.:(if applicable)
1a. Date of installation (month/year): 2013	003-0208-5-0774
3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):	
<hr/> BWI Airport Concourse B - Boiler #4 <hr/> One (1) Hydrotherm KN-30 natural gas-fired boiler rated at 3.0 MMBtu/hr used for production of HTHW. <hr/> Emission Point No.: EP-26 <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	
4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None	
General Reference:_____	
Continuous Processes:	_____ hours/day _____ days/year
Batch Processes:	_____ hours/batch _____ batches/day
	_____ days/year
5. Fuel Consumption:	
Type(s) of Fuel	% Sulfur
Annual Usage (specify units)	
1. Natural Gas	Negligible
6.59 MMcf/yr	
2. _____	
3. _____	
6. Emissions in Tons:	
A. Actual Major: <u>No</u>	Potential Major: <u>No</u> (note: before control device)
B. Actual Emissions: NOx <u>0.16</u> SOx <u>0.00</u> VOC <u>0.02</u> PM10 <u>0.01</u> HAPs <u>0.006</u>	



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

<p>1. Emissions Unit No.: EU-27</p> <p>1a. Date of installation (month/year): 2014</p>	<p>2. MDE Registration No.:(if applicable)</p> <p>003-0208-5-0794</p>												
<p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <hr/> <p>BWI Airport ARFF Building - Boiler</p> <hr/> <p>One (1) Hydrotherm KN-10 natural gas-fired boiler rated at 1.0 MMBtu/hr used for production of HTHW.</p> <hr/> <p>Emission Point No.: EP-27</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>													
<p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None</p> <p>General Reference: _____</p> <p>Continuous Processes: _____ hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p>_____ days/year</p>													
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Type(s) of Fuel	% Sulfur	Annual Usage (specify units)											
1. Natural Gas	Negligible	1.10 MMcf/yr											
2. _____	_____	_____											
3. _____	_____	_____											
<p>6. Emissions in Tons:</p> <p>A. Actual Major: <u>No</u> Potential Major: <u>No</u> (note: before control device)</p> <p>B. Actual Emissions: NO_x <u>0.03</u> SO_x <u>0.00</u> VOC <u>0.00</u> PM₁₀ <u>0.00</u> HAPs <u>0.001</u></p>													



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

<p>1. Emissions Unit No.: EU-29</p> <p>1a. Date of installation (month/year): 2015</p>	<p>2. MDE Registration No.:(if applicable)</p> <p>003-0208-9-1109</p>												
<p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <hr/> <p>BWI Airport OMU - Emergency Generator</p> <hr/> <p>One (1) MTU 750 kW diesel-fired emergency generator used for electricity generation.</p> <hr/> <p>Emission Point No.: EP-29</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>													
<p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None</p> <p>General Reference:_____</p> <p>Continuous Processes: _____ hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p>_____ days/year</p>													
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Type(s) of Fuel	% Sulfur	Annual Usage (specify units)											
1. Diesel	0.0015%	0.43 Mgal/yr											
2. _____	_____	_____											
3. _____	_____	_____											
<p>6. Emissions in Tons:</p> <p>A. Actual Major: <u>No</u> Potential Major: <u>No</u> (note: before control device)</p> <p>B. Actual Emissions: NOx <u>0.10</u> SOx <u>0.00</u> VOC <u>0.00</u> PM10 <u>0.00</u> HAPs <u>0.0001</u></p>													



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: EU-30 1a. Date of installation (month/year): October 2006	2. MDE Registration No.:(if applicable) 003-0208-5-0831												
3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): <hr/> ARFF - Heater <hr/> One (1) Trane natural gas-fired boiler rated at 1.65 MMBtu/hr used for heat. <hr/> Emission Point No.: EP-30 <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>													
4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None General Reference: _____ Continuous Processes: _____ hours/day _____ days/year Batch Processes: _____ hours/batch _____ batches/day _____ days/year													
5. Fuel Consumption: <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%; text-align:left;">Type(s) of Fuel</th> <th style="width:30%; text-align:left;">% Sulfur</th> <th style="width:40%; text-align:left;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. <u>Natural Gas</u></td> <td><u>Negligible</u></td> <td><u>1.82 MMcf/yr</u></td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table>		Type(s) of Fuel	% Sulfur	Annual Usage (specify units)	1. <u>Natural Gas</u>	<u>Negligible</u>	<u>1.82 MMcf/yr</u>	2. _____	_____	_____	3. _____	_____	_____
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)											
1. <u>Natural Gas</u>	<u>Negligible</u>	<u>1.82 MMcf/yr</u>											
2. _____	_____	_____											
3. _____	_____	_____											
6. Emissions in Tons: A. Actual Major: <u>No</u> Potential Major: <u>No</u> (note: before control device) B. Actual Emissions: NO _x <u>0.05</u> SO _x <u>0.00</u> VOC <u>0.00</u> PM ₁₀ <u>0.00</u> HAPs <u>0.002</u>													



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: EU-32 1a. Date of installation (month/year): 2017	2. MDE Registration No.:(if applicable) 003-0208-9-1140												
3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): One (1) Temporary generator rated 1000 kW or less used for electricity generation. Emission Point No.: EP-32													
4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None General Reference: _____ Continuous Processes: _____ hours/day _____ days/year Batch Processes: _____ hours/batch _____ batches/day _____ days/year													
5. Fuel Consumption: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Type(s) of Fuel</th> <th style="text-align: left;">% Sulfur</th> <th style="text-align: left;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Diesel</td> <td>0.0015%</td> <td>N/A</td> </tr> <tr> <td>2.</td> <td></td> <td></td> </tr> <tr> <td>3.</td> <td></td> <td></td> </tr> </tbody> </table>		Type(s) of Fuel	% Sulfur	Annual Usage (specify units)	1. Diesel	0.0015%	N/A	2.			3.		
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)											
1. Diesel	0.0015%	N/A											
2.													
3.													
6. Emissions in Tons: A. Actual Major: <u>No</u> Potential Major: <u>No</u> (note: before control device) B. Actual Emissions: NO _x <u>N/A</u> SO _x <u>N/A</u> VOC <u>N/A</u> PM ₁₀ <u>N/A</u> HAPs <u>N/A</u>													



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: EU-33 1a. Date of installation (month/year): November 2020	2. MDE Registration No.:(if applicable) 003-0208-5-0880												
3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): <hr/> D-Pier Boiler 1 <hr/> One (1) KN-30 natural gas-fired boiler rated at 3.00 MMBtu/hr used for heat. <hr/> Emission Point No.: EP-33 <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>													
4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None General Reference: _____ Continuous Processes: _____ hours/day _____ days/year Batch Processes: _____ hours/batch _____ batches/day _____ days/year													
5. Fuel Consumption: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%; text-align: left;">Type(s) of Fuel</th> <th style="width: 30%; text-align: left;">% Sulfur</th> <th style="width: 30%; text-align: left;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. <u>Natural Gas</u></td> <td><u>Negligible</u></td> <td><u>3.51 MMcf/yr</u></td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table>		Type(s) of Fuel	% Sulfur	Annual Usage (specify units)	1. <u>Natural Gas</u>	<u>Negligible</u>	<u>3.51 MMcf/yr</u>	2. _____	_____	_____	3. _____	_____	_____
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)											
1. <u>Natural Gas</u>	<u>Negligible</u>	<u>3.51 MMcf/yr</u>											
2. _____	_____	_____											
3. _____	_____	_____											
6. Emissions in Tons: A. Actual Major: <u>No</u> Potential Major: <u>No</u> (note: before control device) B. Actual Emissions: NO _x <u>0.18</u> SO _x <u>0.00</u> VOC <u>0.01</u> PM ₁₀ <u>0.00</u> HAPs <u>0.003</u>													



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

<p>1. Emissions Unit No.: EU-34</p> <p>1a. Date of installation (month/year): November 2020</p>	<p>2. MDE Registration No.:(if applicable)</p> <p>003-0208-5-0881</p>												
<p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <hr/> <p>D-Pier Boiler 2</p> <hr/> <p>One (1) KN-30 natural gas-fired boiler rated at 3.00 MMBtu/hr used for heat.</p> <hr/> <p>Emission Point No.: EP-34</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>													
<p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None</p> <p>General Reference:_____</p> <p>Continuous Processes: _____ hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p>_____ days/year</p>													
<p>5. Fuel Consumption:</p> <table border="0"> <thead> <tr> <th>Type(s) of Fuel</th> <th>% Sulfur</th> <th>Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Natural Gas</td> <td>Negligible</td> <td>3.51 MMcf/yr</td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table>		Type(s) of Fuel	% Sulfur	Annual Usage (specify units)	1. Natural Gas	Negligible	3.51 MMcf/yr	2. _____	_____	_____	3. _____	_____	_____
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)											
1. Natural Gas	Negligible	3.51 MMcf/yr											
2. _____	_____	_____											
3. _____	_____	_____											
<p>6. Emissions in Tons:</p> <p>A. Actual Major: <u>No</u> Potential Major: <u>No</u> (note: before control device)</p> <p>B. Actual Emissions: NO_x <u>0.18</u> SO_x <u>0.00</u> VOC <u>0.01</u> PM₁₀ <u>0.00</u> HAPs <u>0.003</u></p>													



Section 3B
Citation to and Description of Applicable Federally
Enforceable Requirements

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-1 through EU-3 General Reference: COMAR 26.11.09.05A(2)

Briefly describe the Emission Standard/Limit or Operational Limitation:

Control of Visible Emissions - Fuel Burning Equipment - A person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance with COM data, emissions that are visible to a human observer are those that are equal to or greater than 10% opacity.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- Quarterly Monitoring Report:
Annual Compliance Certification:
Semi-Annual Monitoring Report: Jan 30, July 30

Methods used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: Proper operation and maintenance of boilers in a manner to prevent visible emissions; Verification of no visible emissions when burning No. 2 fuel oil; If emissions are visible: Inspection of combustion control system and boiler operations, performance of necessary adjustments and/or repairs, documentation of results of inspections, adjustments and/or repairs, and Method 9 observations as required.

Testing: Reference N/A Describe:

Record Keeping: Reference COMAR 26.11.03.06C Describe: Operation manual and prevention maintenance plan on site; Records of maintenance performed that relates to combustion performance; Log of visible emissions observations performed available to the Department upon request; Records of hours that No. 2 fuel oil is burned.

COMAR 26.11.01.07

Reporting: Reference COMAR 26.11.03.06C(7) Describe: Immediately report any deviations from requirements that could endanger human health or the environment; Report all occurrences of excess emissions that are expected to last for one hour or longer; Report deviations from permit conditions when requested; Submit semi-annual monitoring reports; Submit written report as requested concerning excess emissions.

Frequency of submittal of the compliance demonstration: Semi-annual



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-1 and EU-2 General Reference: 40 CFR 60.43c

Briefly describe the Emission Standard/Limit or Operational Limitation:

Control of Particulate Matter Emissions - Standard for particulate matter (PM) -

Particulate and opacity limits for oil-fired boilers greater than 30 MMBtu/hr. No owner or operator of an affected facility that combusts oil and has a heat input capacity of 30 MMBtu/hr or greater shall cause to be discharged into the atmosphere for that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average) except for one 6-minute period per hour of not more than 27 percent opacity.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted: N/A

- Quarterly Monitoring Report:
Annual Compliance Certification:
Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: Reference 40 CFR 60.47c Describe: Use of distillate oil containing no more than 0.5 percent sulfur by weight.

Testing: Reference 40 CFR 60.45c Describe: Follow applicable procedures under 40 CFR 60.48c(f)

Record Keeping: Reference 40 CFR 60.48c(f) Describe: Fuel supplier certifications containing: name of oil supplier, statement that oil complies with 40 CFR 60.41c requirements, and sulfur content of fuel oil.

Reporting: Reference 40 CFR 60.48c(j) Describe: Submission of reports as required.

Frequency of submittal of the compliance demonstration: Semi-annual



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-1 through EU-3 General Reference: COMAR 26.11.09.07A(2)

Briefly describe the Emission Standard/Limit or Operational Limitation:

Control of Sulfur Oxides - Sulfur Content Limitation for Fuel -

Distillate fuel oil in Anne Arundel County limited to 0.3 percent sulfur by weight.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted: N/A

- Quarterly Monitoring Report:
Annual Compliance Certification:
Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: Reference N/A Describe:

Testing: Reference N/A Describe:

Record Keeping: Reference COMAR 26.11.03.06C Describe: Maintain records of fuel supplier's certifications.

Reporting: Reference N/A Describe:

Frequency of submittal of the compliance demonstration: N/A



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-1 through EU-3 General Reference: 40 CFR 60.42c

Briefly describe the Emission Standard/Limit or Operational Limitation:

Control of Sulfur Oxides - Standard for sulfur dioxide (SO2) -

Sulfur dioxide limits and/or fuel sulfur limits for oil-fired boilers between 10 and 100 MMBtu/hr.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted: N/A

- Quarterly Monitoring Report:
Annual Compliance Certification:
Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: Reference 40 CFR 60.46c Describe: Use of distillate oil containing no more than 0.5 percent sulfur by weight based on fuel supplier certification.

Testing: Reference 40 CFR 60.44c Describe: Certification from the fuel supplier under 40 CFR 60.48c(f)

Record Keeping: Reference 40 CFR 60.48c(f) Describe: Fuel supplier certifications containing: name of oil supplier, statement that oil complies with 40 CFR 60.41c requirements, and sulfur content of fuel oil.

Reporting: Reference 40 CFR 60.48c(j) Describe: Submission of reports as required.

Frequency of submittal of the compliance demonstration: Semi-annual



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-1 through EU-3 General Reference: COMAR 26.11.09.08B(5)

Briefly describe the Emission Standard/Limit or Operational Limitation:

Control of Nitrogen Oxides - Operator Training -

Equipment operator training including in-house training course approved by the Department

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted: N/A

- Quarterly Monitoring Report:
Annual Compliance Certification:
Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: Reference N/A Describe:

Testing: Reference N/A Describe:

Record Keeping: Reference COMAR 26.11.09.08E(5) Describe: Maintain records of training program attendance.

Reporting: Reference N/A Describe:

Frequency of submittal of the compliance demonstration: N/A



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-1 through EU-3 General Reference: COMAR 26.11.09.08E

Briefly describe the Emission Standard/Limit or Operational Limitation:

Control of Nitrogen Oxides - Requirements for Fuel-Burning Equipment with a Rated Heat Input Capacity of 100

MMBtu Per Hour or Less

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted: N/A

- Quarterly Monitoring Report:
Annual Compliance Certification:
Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: Measurement of NOx content of flue gases for a 5-minute period every 168 hours of operation on oil.

COMAR 26.11.03.06C

Testing: Reference COMAR 26.11.09.08E(2) Describe: Stack testing performed on both oil and natural gas. Perform combustion analysis at least once each calendar year.

Record Keeping: Reference COMAR 26.11.03.06C Describe: Maintenance of results of stack tests and analyzer readings.

Reporting: Reference COMAR 26.11.03.06C Describe: Submission of stack test results.

Frequency of submittal of the compliance demonstration: N/A



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-1 through EU-3 General Reference: COMAR 26.11.02.09A

Briefly describe the Emission Standard/Limit or Operational Limitation:

Operational Limit - Boilers limited to natural gas or No. 2 fuel oil unless prior approval granted.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted: N/A

- Quarterly Monitoring Report:
Annual Compliance Certification:
Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: Reference N/A Describe:

Testing: Reference N/A Describe:

Record Keeping: Reference COMAR 26.11.02.19C(1)(c) Describe: Records of quantity and types of fuel burned

Reporting: Reference COMAR 26.11.02.19D Describe: Submission of fuel usage records with annual emissions certification report.

Frequency of submittal of the compliance demonstration: Annual



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-1 through EU-3 General Reference: PTC 003-0208-5-0681, 5-0682, & 5-0683 issued 1/6/2009

Briefly describe the Emission Standard/Limit or Operational Limitation:

Operational Limit - NOx emissions from the three boilers in total limited to less than 25 tons per year for any 12-month consecutive period to exempt the boilers from the requirements of COMAR 26.11.17.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted: N/A

- Quarterly Monitoring Report: Annual Compliance Certification: Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: Reference N/A Describe:

Testing: Reference N/A Describe:

Record Keeping: Reference See General Reference Describe: Records of rolling 12-month NOx emissions.

Reporting: Reference N/A Describe:

Frequency of submittal of the compliance demonstration: N/A



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-1 through EU-3, EU-31 General Reference: 40 CFR 63 Subpart JJJJJJ

Briefly describe the Emission Standard/Limit or Operational Limitation:

National Emissions Standards for Hazardous Air Pollutants - Industrial, Commercial, and Institutional Boilers

at Area Sources - Requirements for new and existing oil-fired boilers

New oil-fired boilers at area sources (EU-31) must comply with Item 13 of Table 2 of this subpart.

Existing oil-fired boilers 10 MMBtu/hr and greater (EU-1 - EU-3) must comply with Items 4 and 16 of Table 2 of this subpart.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted: N/A

- Quarterly Monitoring Report:
Annual Compliance Certification:
Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: Reference Describe:

Testing: Reference 40 CFR 63.11223 Describe: EU-31: Conduct tune-up every 5 years.

EU-1 through EU-3: Conduct one-time energy assessment; Conduct biennial tune-up.

Record Keeping: Reference 40 CFR 63.11225(c) Describe: Records of notification, tune-ups, and fuel type and usage.

Reporting: Reference 40 CFR 63.11225 Describe: Submit initial notification. Submit compliance certification every 5 years (EU-31) or 2 years (EU-1 through EU-3) by March 15 if there were any deviations or malfunctions.

Frequency of submittal of the compliance demonstration: N/A



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-31 General Reference: COMAR 26.11.09.05A

Briefly describe the Emission Standard/Limit or Operational Limitation:

Control of Visible Emissions - Fuel Burning Equipment - A person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10% opacity.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted: N/A

- Quarterly Monitoring Report:
Annual Compliance Certification:
Semi-Annual Monitoring Report: Jan 30, July 30

Methods used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: Proper operation and maintenance of boilers in a manner to prevent visible emissions; Verification of no visible emissions when burning No. 2 fuel oil; If emissions are visible: Inspection of combustion control system and boiler operations, performance of necessary adjustments and/or repairs, documentation of results of inspections, adjustments and/or repairs, and Method 9 observations as required.

Testing: Reference N/A Describe:

Record Keeping: Reference COMAR 26.11.03.06C Describe: Operation manual and prevention maintenance plan on site; Records of maintenance performed that relates to combustion performance; Log of visible emissions observations performed available to the Department upon request; Records of hours that No. 2 fuel oil is burned.

COMAR 26.11.01.07

Reporting: Reference COMAR 26.11.03.06C(7) Describe: Immediately report any deviations from requirements that could endanger human health or the environment; Report all occurrences of excess emissions that are expected to last for one hour or longer; Report deviations from permit conditions when requested; Submit semi-annual monitoring reports; Submit written report as requested concerning excess emissions.

Frequency of submittal of the compliance demonstration: Semi-annual



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-31 General Reference: COMAR 26.11.09.07A(2)

Briefly describe the Emission Standard/Limit or Operational Limitation:

Control of Sulfur Oxides - Sulfur Content Limitation for Fuel -

Distillate fuel oil in Anne Arundel County limited to 0.3 percent sulfur by weight.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted: N/A

- Quarterly Monitoring Report:
Annual Compliance Certification:
Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: Fuel supplier certification of sulfur in fuel.

Testing: Reference N/A

Describe:

Record Keeping: Reference COMAR 26.11.03.06C Describe: Maintain records of fuel supplier's certifications.

Reporting: Reference COMAR 26.11.09.07C

Describe: Provide records to the Department upon request.

Frequency of submittal of the compliance demonstration: N/A



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-31 General Reference: COMAR 26.11.09.08B(5)

Briefly describe the Emission Standard/Limit or Operational Limitation:

Control of Nitrogen Oxides - Operator Training -

Equipment operator training including in-house training course approved by the Department

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted: N/A

- Quarterly Monitoring Report:
Annual Compliance Certification:
Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: Reference N/A Describe:

Testing: Reference N/A Describe:

Record Keeping: Reference COMAR 26.11.09.08E(5) Describe: Maintain records of training program attendance.

Reporting: Reference COMAR 26.11.09.08E(5) Describe: Provide records to the Department upon request.

Frequency of submittal of the compliance demonstration: N/A



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-31 General Reference: COMAR 26.11.09.08E

Briefly describe the Emission Standard/Limit or Operational Limitation:

Control of Nitrogen Oxides - Requirements for Fuel-Burning Equipment with a Rated Heat Input Capacity of 100 MMBtu Per Hour or Less - Annual combustion analysis and record keeping requirements.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted: N/A

- Quarterly Monitoring Report:
Annual Compliance Certification:
Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.09.08E(2) Describe: Optimization of combustion based on annual combustion analysis.

Testing: Reference COMAR 26.11.09.08E(2) Describe: Combustion analysis once per year.

Record Keeping: Reference COMAR 26.11.09.08E(5) Describe: Maintenance of results of annual combustion analysis.

Reporting: Reference COMAR 26.11.09.08E(3) Describe: Provide records to the Department upon request.

Frequency of submittal of the compliance demonstration: N/A



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-31 General Reference: COMAR 26.11.02.09A

Briefly describe the Emission Standard/Limit or Operational Limitation:

Operational Limit - Boiler limited to No. 2 fuel oil unless prior approval granted.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted: N/A

- Quarterly Monitoring Report:
Annual Compliance Certification:
Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: Reference N/A Describe:

Testing: Reference N/A Describe:

Record Keeping: Reference COMAR 26.11.02.19C(1)(c) Describe: Records of quantity and types of fuel burned

Reporting: Reference COMAR 26.11.02.19D Describe: Submission of fuel usage records with annual emissions certification report.

Frequency of submittal of the compliance demonstration: Annual



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-4 through EU-6, General Reference: COMAR 26.11.09.05E
EU-10 through EU-18, EU-29, EU-32

Briefly describe the Emission Standard/Limit or Operational Limitation:
Control of Visible Emissions - Stationary Internal Combustion Engine Powered Equipment - Limitations on
visible emissions during idle mode and operating mode with exceptions.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted: N/A

- Quarterly Monitoring Report:
Annual Compliance Certification:
Semi-Annual Monitoring Report: Jan 30, July 30

Methods used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: Preventative maintenance to optimize combustion performance.

Testing: Reference N/A Describe:

Record Keeping: Reference COMAR 26.11.03.06C Describe: Records of preventative maintenance.

Reporting: Reference COMAR 26.11.03.06C(7) Describe: Immediately report any deviations from requirements that
could endanger human health or the environment; Report all occurrences of excess emissions that are expected to last for
one hour or longer; Report deviations from permit conditions when requested; Submit semi-annual monitoring reports;
Submit written report as requested concerning excess emissions.

Frequency of submittal of the compliance demonstration: Semi-annual



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-4 through EU-6, General Reference: COMAR 26.11.09.07A(2) EU-10 through EU-18, EU-29, EU-32

Briefly describe the Emission Standard/Limit or Operational Limitation:

Control of Sulfur Oxides - Sulfur Content Limitations for Fuel -

Distillate fuel oil in Anne Arundel County limited to 0.3 percent sulfur by weight.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted: N/A

- Quarterly Monitoring Report: Annual Compliance Certification: Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: Obtain fuel supplier's certifications showing compliance with fuel sulfur limitation.

Testing: Reference N/A Describe:

Record Keeping: Reference COMAR 26.11.09.07C Describe: Maintain records of fuel supplier's certifications.

Reporting: Reference COMAR 26.11.03.06C Describe: Provide records to the Department upon request.

Frequency of submittal of the compliance demonstration: N/A



SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-4 through EU-6 General Reference: COMAR 26.11.09.08B(5) EU-10 through EU-18, EU-29, EU-32

Briefly describe the Emission Standard/Limit or Operational Limitation:

Control of Nitrogen Oxides - Operator Training -

Equipment operator training including in-house training course approved by the Department

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted: N/A

- Quarterly Monitoring Report: Annual Compliance Certification: Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: Reference N/A Describe:

Testing: Reference N/A Describe:

Record Keeping: Reference COMAR 26.11.03.06C Describe: Maintain records of training program attendance.

Reporting: Reference N/A Describe:

Frequency of submittal of the compliance demonstration: N/A



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-4 through EU-6, General Reference: COMAR 26.11.09.08G EU-10 through EU-18, EU-29, EU-32

Briefly describe the Emission Standard/Limit or Operational Limitation: Control of Nitrogen Oxides - Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less, and Combustion Turbines with a Capacity Factor Greater than 15 Percent

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted: N/A

- Quarterly Monitoring Report: Annual Compliance Certification: Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.09.08G(1)(c) Describe: Optimization of combustion based on annual combustion analysis for engines that operate more than 500 hours during a calendar year.

Testing: Reference COMAR 26.11.09.08G(1)(b) Describe: Combustion analysis once per year for any engines that operate more than 500 hours during a calendar year.

Record Keeping: Reference COMAR 26.11.03.06C Describe: Maintenance of results of annual combustion analysis; maintenance of records of hours of operation and fuel usage on a monthly basis for all generators; calculation of rolling 12-month emissions.

Reporting: Reference COMAR 26.11.09.08G(1)(e) Describe: Provide certification of capacity factor in the engines to the Department with the annual emission certification.

Frequency of submittal of the compliance demonstration: Annual



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-15, EU-16, EU-17, EU-18, EU-29, EU-32 General Reference: 40 CFR 60 Subpart IIII

Briefly describe the Emission Standard/Limit or Operational Limitation: New Source Performance Standards - Stationary Compression Ignition Internal Combustion Engines

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted: N/A

- Quarterly Monitoring Report: Annual Compliance Certification: Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: Reference N/A Describe:

Testing: Reference N/A Describe:

Record Keeping: Reference 40 CFR 60 Subpart IIII Describe: Maintain log of fuel oil combusted, hours of operation, and reason for operation; Maintain documentation of manufacture date, installation date, certification of compliance or engine test data required by 40 CFR 60.4211 and 60.4214(b); Fuel supplier certifications.

Reporting: Reference COMAR 26.11.03.06C Describe: Report amounts of fuel combusted, hours of operation, and reason for operation in the annual emission certification.

Frequency of submittal of the compliance demonstration: Annual



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-15, EU-16, EU-17, EU-18, EU-29, EU-32 General Reference: 40 CFR 63 Subpart ZZZZ

Briefly describe the Emission Standard/Limit or Operational Limitation: National Emissions Standards for Hazardous Air Pollutants - Stationary Reciprocating Internal Combustion Engines - Requirements for new stationary RICE located at an area source New stationary RICE at area sources comply with this Subpart by meeting the requirements of 40 CFR 60 Subpart IIII.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted: N/A

- Quarterly Monitoring Report: Annual Compliance Certification: Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: Reference N/A Describe:

Testing: Reference N/A Describe:

Record Keeping: Reference N/A Describe:

Reporting: Reference N/A Describe:

Frequency of submittal of the compliance demonstration: N/A



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-4 through EU-6 EU-10 through EU-14 General Reference: 40 CFR 63 Subpart ZZZZ

Briefly describe the Emission Standard/Limit or Operational Limitation: National Emissions Standards for Hazardous Air Pollutants - Stationary Reciprocating Internal Combustion Engines - Requirements for Existing Stationary RICE located at an area source Existing emergency stationary CI RICE at area sources must comply with Item 4 of Table 2d of this subpart.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted: N/A

- Quarterly Monitoring Report: Annual Compliance Certification: Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: Reference 40 CFR 63.6625(f) Describe: Install non-resettable hour meter.

Testing: Reference N/A Describe:

Record Keeping: Reference 40 CFR 63.6655 Describe: Records of notifications, malfunctions, and maintenance, hours and reason for operation.

Reporting: Reference 40 CFR 63.6640 Describe: Report any deviations.

Frequency of submittal of the compliance demonstration: N/A



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-7 General Reference: COMAR 26.11.13.04C

Briefly describe the Emission Standard/Limit or Operational Limitation:

Control of VOC Emissions - Small Storage Tanks - Stage I Vapor Recovery (vapor balance line) required

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted: N/A

- Quarterly Monitoring Report:
Annual Compliance Certification:
Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: Reference N/A Describe:

Testing: Reference N/A Describe:

Record Keeping: Reference N/A Describe:

Reporting: Reference N/A Describe:

Frequency of submittal of the compliance demonstration: N/A



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-7 General Reference: 40 CFR 63 Subpart CCCCC

Briefly describe the Emission Standard/Limit or Operational Limitation:

National Emissions Standards for Hazardous Air Pollutants - Gasoline Dispensing Facilities

GDF with a monthly throughput of 10,000 gallons of gasoline or more must comply with the requirements of 63.11117.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted: N/A

- Quarterly Monitoring Report:
Annual Compliance Certification:
Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: Reference 40 CFR 63.11117(d) Describe: Monitor monthly gasoline throughput

Testing: Reference COMAR 26.11.24.04 Describe: Leak, liquid blockage, and dynamic back pressure tests; Automatic shutoff and flow prohibiting mechanism tests.

Record Keeping: Reference 40 CFR 63.11117(d) Describe: Records of monthly gasoline throughput.

Reporting: Reference Describe:

Frequency of submittal of the compliance demonstration:



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-19, EU-20, General Reference: COMAR 26.11.09.05A(2) EU-23 through EU-28, EU-30, EU-33, EU-34

Briefly describe the Emission Standard/Limit or Operational Limitation:

Control of Visible Emissions - Fuel Burning Equipment - A person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance with COM data, emissions that are visible to a human observer are those that are equal to or greater than 10% opacity.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted: N/A

- Quarterly Monitoring Report: Annual Compliance Certification: Semi-Annual Monitoring Report: Jan 30, July 30

Methods used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: Proper operation and maintenance of boilers in a manner to prevent visible emissions.

Testing: Reference N/A Describe:

Record Keeping: Reference COMAR 26.11.03.06C Describe: Operation manual and prevention maintenance plan on site.

Reporting: Reference COMAR 26.11.03.06C(7) Describe: Immediately report any deviations from requirements that could endanger human health or the environment; Report all occurrences of excess emissions that are expected to last for one hour or longer; Report deviations from permit conditions when requested; Submit semi-annual monitoring reports; Submit written report as requested concerning excess emissions.

Frequency of submittal of the compliance demonstration: Semi-annual



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-19, EU-20 General Reference: COMAR 26.11.09.08B(5)
EU-23 through EU-28, EU-30, EU-33, EU-34

Briefly describe the Emission Standard/Limit or Operational Limitation:

Control of Nitrogen Oxides - Operator Training -

Equipment operator training including in-house training course approved by the Department

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted: N/A

- Quarterly Monitoring Report:
Annual Compliance Certification:
Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: Reference N/A Describe:

Testing: Reference N/A Describe:

Record Keeping: Reference COMAR 26.11.09.08E(5) Describe: Maintain records of training program attendance.

Reporting: Reference N/A Describe:

Frequency of submittal of the compliance demonstration: N/A



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-19, EU-20 EU-23 through EU-26, EU-33, EU-34 General Reference: COMAR 26.11.09.08E

Briefly describe the Emission Standard/Limit or Operational Limitation: Control of Nitrogen Oxides - Requirements for Fuel-Burning Equipment with a Rated Heat Input Capacity of 100 MMBtu Per Hour or Less - Annual combustion analysis and record keeping requirements.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted: N/A

- Quarterly Monitoring Report: Annual Compliance Certification: Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.09.08E(2) Describe: Optimize combustion based on annual combustion analysis.

Testing: Reference COMAR 26.11.09.08E(2) Describe: Perform combustion analysis once per year.

Record Keeping: Reference COMAR 26.11.09.08E(3) Describe: Records of results of combustion analysis.

Reporting: Reference COMAR 26.11.09.08E Describe: Results of combustion analysis upon request.

Frequency of submittal of the compliance demonstration: N/A



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-27, EU-28, EU-30 General Reference: COMAR 26.11.09.08E

Briefly describe the Emission Standard/Limit or Operational Limitation:

Control of Nitrogen Oxides - Requirements for Space Heaters

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted: N/A

- Quarterly Monitoring Report:
Annual Compliance Certification:
Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.09.08F(1)(b) Describe: Develop and implement operating and maintenance plan to minimize NOx emissions.

Testing: Reference N/A Describe:

Record Keeping: Reference COMAR 26.11.09.08F(1)(e) Describe: Records of training program attendance for each operator.

Reporting: Reference N/A Describe:

Frequency of submittal of the compliance demonstration: N/A



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-19, EU-20 General Reference: COMAR 26.11.02.09A
EU-23 through EU-28, EU-30, EU-33, EU-34

Briefly describe the Emission Standard/Limit or Operational Limit:
Operational Limit - Boilers limited to natural gas unless prior approval granted.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted: N/A

- Quarterly Monitoring Report:
Annual Compliance Certification:
Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: Reference N/A Describe:

Testing: Reference N/A Describe:

Record Keeping: Reference COMAR 26.11.03.06 Describe: Records of quantity of fuel burned.

Reporting: Reference COMAR 26.11.03.06 Describe: Submission of fuel usage records with annual emissions certification report.

Frequency of submittal of the compliance demonstration: Annual



Section 3C
Obsolete, Extraneous, or Insignificant Permit Conditions

SECTION 3C. OBSOLETE, EXTRANEIOUS, OR INSIGNIFICANT PERMIT CONDITIONS

List permit to construct conditions which should be considered to be obsolete, extraneous, or environmentally insignificant.

Emissions Unit No.: N/A Permit to Construct No.

Emissions Point No.	Date Permit Issued	Condition No.	Brief Description of Condition and Reason for Exclusion



Section 3D
Alternate Operating Scenarios

SECTION 3D. ALTERNATE OPERATING SCENARIOS

Emissions Unit No.: EU1, EU2, & EU3 - Boilers at Central Utility Plant

Briefly describe any alternate operating scenarios. Assign a number to each scenario for identification purposes.

Boilers EU-1 through EU-3 burn natural gas (AOS-1), but may burn No. 2 fuel oil (AOS-2).

Lined area for writing alternate operating scenarios.



Section 3E
Citation to and Description of Applicable Federally
Enforceable Requirements for an Alternate Operating
Scenario

**SECTION 3E. CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS FOR AN
ALTERNATE OPERATING SCENARIO**

Scenario No.: N/A - All federally enforceable requirements included in Section 3B.

Emissions Unit No.: _____ **General Reference:** _____

Briefly describe any applicable Emissions Standard/Limits/Operational Limitations:

Compliance Demonstration

Methods used to demonstrate compliance:

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

Frequency of submittal of the compliance demonstration: _____



Section 4
Control Equipment

SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.</u> : N/A	2. <u>Emissions Point No.</u> : N/A
3. <u>Type and Description of Control Equipment:</u>	
N/A	
4. <u>Pollutants Controlled:</u>	Control Efficiency:
5. <u>Capture Efficiency:</u>	



Section 5
Summary Sheet of Potential Emissions

SECTION 5. SUMMARY SHEET OF POTENTIAL EMISSIONS

List all applicable pollutants in tons per year (tpy) pertaining to this facility. The Emissions Unit No. should be consistent with numbers used in Section 3. Attach a copy of all calculations.

N/A - Per instructions, only facilities claiming an exemption based on an emission level and those resolving a dispute must submit this form.

Pollutant					
CAS Number					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Fugitive Emissions					
Total					



Section 6
Explanation of Proposed Exemptions from Otherwise
Applicable Federally Enforceable Requirements

SECTION 6.

**EXPLANATION OF PROPOSED EXEMPTIONS FROM
OTHERWISE APPLICABLE FEDERALLY ENFORCEABLE
REQUIREMENTS**

Describe and cite the applicable requirements to be exempted. Complete this Section only if the facility is claiming exemptions from or the non-applicability of any federally enforceable requirements. N/A

1. Applicable Requirement:
2. Brief Description:
3. Reasons for Proposed Exemption or Justification of Non-applicability:



Section 7
Compliance Schedule for Noncomplying Emissions Units

SECTION 7. COMPLIANCE SCHEDULE FOR NONCOMPLYING EMISSIONS UNITS

N/A

1. Emissions Unit #	Anticipated Compliance Date
Applicable Federally Enforceable Requirement being Violated:	

2. Description of Plan to Achieve Compliance: _____ _____ _____ _____ _____ _____

Certified Progress Reports for sources in noncompliance shall be submitted at least quarterly to the Department.



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State-Only Enforceable Requirements

STATE-ONLY ENFORCEABLE REQUIREMENTS

Facility Information:

Name of Facility:	County
Baltimore Washington International (BWI) Thurgood Marshall Airport	Anne Arundel
Premises Number:	
Street Address: BWI Airport	
24-hour Emergency Telephone Number for Air Pollution Matters: 410-859-7448	
Type of Equipment (List Significant Units):	
EU-1 - EU-3, EU-31: Fuel burning equipment using gaseous fuels and No. 2 Fuel Oil and having a heat input of greater than 1 MMBtu/hr	
EU-4 - EU-6, EU-10 - EU-18, EU-29, EU-32: Stationary internal combustion engines larger than 500 bhp (373 kW)	
EU-7: Motor gasoline storage tank	
EU-8: Training fires	
EU19, EU-20, EU23 - EU-28, EU-30, EU-33, EU-34: Fuel burning equipment using gaseous fuels and having a heat input of greater than 1 MMBtu/hr.	



**CITATION TO AND DESCRIPTION OF APPLICABLE STATE-
ONLY ENFORCEABLE REQUIREMENTS**

Registration No.: _____

Emissions Unit No.: Facility-wide _____

General Reference: COMAR 26.11.06.08

Briefly describe the requirement and the emissions limit (if applicable):

Nuisance - An installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be construed as authorizing or permitting the creation of, or maintenance of, nuisance air pollution.

Methods used to demonstrate compliance:

N/A



**CITATION TO AND DESCRIPTION OF APPLICABLE STATE-
ONLY ENFORCEABLE REQUIREMENTS**

Registration No.: _____

Emissions Unit No.: Facility-wide _____

General Reference: COMAR 26.11.06.09

Briefly describe the requirement and the emissions limit (if applicable):

Odors - A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors
beyond the property line in such a manner that nuisance or air pollution is created.

Methods used to demonstrate compliance:

N/A



**CITATION TO AND DESCRIPTION OF APPLICABLE STATE-
ONLY ENFORCEABLE REQUIREMENTS**

Registration No.: _____

Emissions Unit No.: Facility-wide

General Reference: COMAR 26.11.15 & .16

Briefly describe the requirement and the emissions limit (if applicable):

Toxic Air Pollutants - Permittee shall submit to the Department, by April 1 of each year during the term of

permit, a written certification of the results of an analysis of emissions of toxic air pollutants from the

Permittee's facility during the previous calendar year. The analysis shall include either:

a) statement that previously submitted compliance demonstrations for emissions of TAPS remain valid; or

b) revised compliance demonstration accounting for changed in operations, analytical methods, emissions determinations, or other factors.

Methods used to demonstrate compliance:

Analysis of TAP emissions for each calendar year



**CITATION TO AND DESCRIPTION OF APPLICABLE STATE-
ONLY ENFORCEABLE REQUIREMENTS**

Registration No.: _____

Emissions Unit No.: EU-4 through EU-6, _____ **General Reference:** COMAR 26.11.36.03A
EU-10 through EU-18, EU-29, EU-32

Briefly describe the requirement and the emissions limit (if applicable):

Additional NOx Requirements, General Requirements and Exemptions for Emergency Generators

and Load Shaving Units - Emergency generator may not be operated except for emergencies, testing,

and maintenance; Emergency generator may be subject to 40 CFR 60 and 63; Emergency generator

may not be operated for testing and maintenance between 12:01 am and 2 pm on any day on which

the air quality will be a code orange, red or purple unless a re-test is necessary.

Methods used to demonstrate compliance:

Records of hours of operation and reason for operation.



Insignificant Activities

**MARYLAND DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION
RENEWAL TITLE V APPLICATION INSIGNIFICANT ACTIVITIES LIST**

III. Check-off List of Emissions Units and Activities Exempt from the Part 70 Permit Application

Insignificant Activities

Place a check mark beside each type of emissions unit or activity that is located at the facility. Where noted, please indicate the number of that type of emissions unit or activity located at the facility.

- (1) No. 17 Fuel burning equipment using gaseous fuels or no. 1 or no. 2 fuel oil, and having a heat input less than 1,000,000 Btu (1.06 gigajoules) per hour;
- (2) No. Fuel-burning equipment using solid fuel and having a heat input of less than 350,000 Btu (0.37 gigajoule) per hour;
- (3) No. 37 Stationary internal combustion engines with less than 500 brake horsepower (373 kilowatts) of power output
- (4) X Space heaters utilizing direct heat transfer and used solely for comfort heat;
- (5) Water cooling towers and water cooling ponds unless used for evaporative cooling of water from barometric jets or barometric condensers, or used in conjunction with an installation requiring a permit to operate;
- (6) No. Unheated VOC dispensing containers or unheated VOC rinsing containers of 60 gallons (227 liters) capacity or less;
- (7) Commercial bakery ovens with a rated heat input capacity of less than 2,000,000 Btu per hour;
- (8) Kilns used for firing ceramic ware, heated exclusively by natural gas, liquefied petroleum gas, electricity, or any combination of these;
- (9) Confection cookers where the products are edible and intended for human consumption;
- (10) Die casting machines;
- (11) Photographic process equipment used to reproduce an image upon sensitized material through the use of radiant energy;
- (12) Equipment for drilling, carving, cutting, routing, turning, sawing, planing, spindle sanding, or disc sanding of wood or wood products;

**MARYLAND DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION
RENEWAL TITLE V APPLICATION INSIGNIFICANT ACTIVITIES LIST**

- (13) ___ Brazing, soldering, or welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals and not directly related to plant maintenance, upkeep and repair or maintenance shop activities;
- (14) ___ Equipment for washing or drying products fabricated from metal or glass, provided that no VOC is used in the process and that no oil or solid fuel is burned;
- (15) ___ Containers, reservoirs, or tanks used exclusively for electrolytic plating work, or electrolytic polishing, or electrolytic stripping of brass, bronze, cadmium, copper, iron, lead, nickel, tin, zinc, and precious metals;
- (16) Containers, reservoirs, or tanks used exclusively for:
- (a) ___ Dipping operations for applying coatings of natural or synthetic resins that contain no VOC;
 - (b) ___ Dipping operations for coating objects with oils, waxes, or greases, and where no VOC is used;
 - (c) ___ Storage of butane, propane, or liquefied petroleum, or natural gas;
 - (d) No. 93 Storage of lubricating oils;
 - (e) No. ___ Unheated storage of VOC with an initial boiling point of 300 °F (
 - (f) No. 84 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel,
 - (g) No. ___ Storage of motor vehicle gasoline and having individual tank capacities of 2,000 gallons (7.6 cubic meters) or less;
 - (h) No. ___ The storage of VOC normally used as solvents, diluents, thinners, inks, colorants, paints, lacquers, enamels, varnishes, liquid resins, or other surface coatings and having individual capacities of 2,000 gallons (7.6 cubic meters) or less;
- (17) ___ Gaseous fuel-fired or electrically heated furnaces for heat treating glass or metals, the use of which does not involve molten materials;
- (18) Crucible furnaces, pot furnaces, or induction furnaces, with individual capacities of 1,000 pounds (454 kilograms) or less each, in which no sweating or distilling is conducted, or any fluxing is conducted using chloride, fluoride,

**MARYLAND DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION
RENEWAL TITLE V APPLICATION INSIGNIFICANT ACTIVITIES LIST**

or ammonium compounds, and from which only the following metals are poured or in which only the following metals are held in a molten state:

- (a) ___ Aluminum or any alloy containing over 50 percent aluminum, if no gaseous chloride compounds, chlorine, aluminum chloride, or aluminum fluoride is used;
 - (b) ___ Magnesium or any alloy containing over 50 percent magnesium;
 - (c) ___ Lead or any alloy containing over 50 percent lead;
 - (d) ___ Tin or any alloy containing over 50 percent tin;
 - (e) ___ Zinc or any alloy containing over 50 percent zinc;
 - (f) ___ Copper;
 - (g) ___ Precious metals;
- (19) ___ Charbroilers and pit barbecues as defined in COMAR 26.11.18.01 with a total cooking area of 5 square feet (0.46 square meter) or less;
- (20) ___ First aid and emergency medical care provided at the facility, including related activities such as sterilization and medicine preparation used in support of a manufacturing or production process;
- (21) ___ Certain recreational equipment and activities, such as fireplaces, barbecue pits and cookers, fireworks displays, and kerosene fuel use;
- (22) ___ Potable water treatment equipment, not including air stripping equipment;
- (23) ___ Firing and testing of military weapons and explosives;
- (24) ___ Emissions resulting from the use of explosives for blasting at quarrying operations and from the required disposal of boxes used to ship the explosive;
- (25) ___ Comfort air conditioning subject to requirements of Title VI of the Clean Air Act;
- (26) ___ Grain, metal, or mineral extrusion presses;
- (27) ___ Breweries with an annual beer production less than 60,000 barrels;

**MARYLAND DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION
RENEWAL TITLE V APPLICATION INSIGNIFICANT ACTIVITIES LIST**

(28) ___ Natural draft hoods or natural draft ventilators that exhaust air pollutants into the ambient air from manufacturing/industrial or commercial processes;

(29) ___ Laboratory fume hoods and vents;

(30) No. ___ Sheet-fed letter or lithographic printing press(es) with a cylinder width of less than 18 inches;

For the following, attach additional pages as necessary:

(31) any other emissions unit, not listed in this section, with a potential to emit less than the “de minimus” levels listed in COMAR 26.11.02.10X (list and describe units):

No. ___ _____

No. ___ _____

No. ___ _____

No. ___ _____

No. ___ _____

(32) any other emissions unit at the facility which is not subject to an applicable requirement of the Clean Air Act (list and describe):

No. 3 Parts Washers _____

No. ___ _____

No. ___ _____

Application Completion Checklist

**MARYLAND DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION
RENEWAL TITLE V APPLICATION CHECKLIST**

VI .Application Completeness Checklist

The purpose of this part is to list the information required to achieve a Part 70 application shield.

Cover Page

- (X) Name and address of owner or operator, including telephone number.
- (X) Name and address of facility, including the plant manager's name and telephone number.
- (X) A 24-hour emergency telephone number for air pollution matters.

Section 1 CERTIFICATION STATEMENTS

- (X) The certification statement completed and signed by a responsible official.

Section 2 FACILITY DESCRIPTION SUMMARY

- (X) A brief description of each of the source's process(es), including all applicable SIC codes and end products.
- (X) Flow diagrams indicating all emissions units, emission points, and control devices.
- (X) A plot plan of the entire facility.
- (X) Emission Certification Report.
- (X) General Emissions Information.

Section 3 EMISSIONS UNIT DESCRIPTIONS –

This section must be completed for each emissions unit.

Part A

- (X) Emissions unit number.
- (X) Detailed description of unit, including all emission points.
- (X) Federally enforceable limit(s) on the operating schedule.

**MARYLAND DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION
RENEWAL TITLE V APPLICATION CHECKLIST**

- (X) Fuel consumption information for any emissions unit that consumes fuel including the type of fuel, percent sulfur, and annual usage of fuel.

Part B

- (X) A citation and description of each federally enforceable requirement, including all emission standards, for each emissions unit.
- (X) A statement of compliance demonstration techniques for each requirement, including a description of monitoring, record keeping, reporting requirements, and test methods.
- (X) The frequency of submittal of the compliance demonstration during the permit term.

Part C

- (X) Emissions unit number.
- (X) Permit to construct number.
- (X) Emissions point number(s).
- (X) Date(s) the permit to construct was issued.
- (X) Condition number(s) as indicated on the permit to construct.
- (X) Description of the permit condition(s) and the reason(s) why they are believed to be obsolete, extraneous, or insignificant.

Part D

- (X) Description of all alternate operating scenarios that apply to an emissions unit.
- (X) Number assigned to each scenario.
- (X) Emissions unit number.

**MARYLAND DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION
RENEWAL TITLE V APPLICATION CHECKLIST**

- (X) Description of the operating parameters for the emissions unit and other information which describes the how the operation of the unit will change under the different scenario.

Part E N/A

- (X) A citation and description of each federally enforceable requirement triggered by an operating scenario, including all emission standards, for each emissions unit.
- (X) As an attachment, the date and results of the most recent compliance demonstration for each emission standard and/or emissions certification report with relevant supporting documentation.
- (X) A statement of compliance demonstration techniques for each requirement, including a description of monitoring, record keeping, reporting requirements, and test methods.
- (X) The frequency of submittal of the compliance demonstration during the permit term.

Section 4 **CONTROL EQUIPMENT** N/A

- (X) The type of each piece of air pollution control equipment
- (X) The capture and control efficiencies of the control equipment.

Section 5 **SUMMARY SHEET OF POTENTIAL EMISSIONS** N/A

- (X) Quantity of potential emissions for criteria pollutants and HAPs emitted in tons per year for each emissions unit.
- (X) Fugitive emission estimations for the entire facility for criteria pollutants and HAPs emitted in tons per year.
- (X) Basis for all emission calculations.

Section 6 **AN EXPLANATION OF PROPOSED EXEMPTIONS
FROM OTHERWISE APPLICABLE FEDERALLY
ENFORCEABLE REQUIREMENTS**

- (X) An explanation of the proposed exemption. N/A

**MARYLAND DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION
RENEWAL TITLE V APPLICATION CHECKLIST**

**Section 7 COMPLIANCE SCHEDULE FOR NONCOMPLYING
EMISSIONS UNITS N/A**

- (X) Identification of emissions unit(s) not in compliance, including the requirement being violated and the effective compliance date.

- (X) Detailed description of methods to be used to achieve compliance.

- (X) A schedule of remedial measures, including an enforceable sequence of actions with milestones.

Attachment

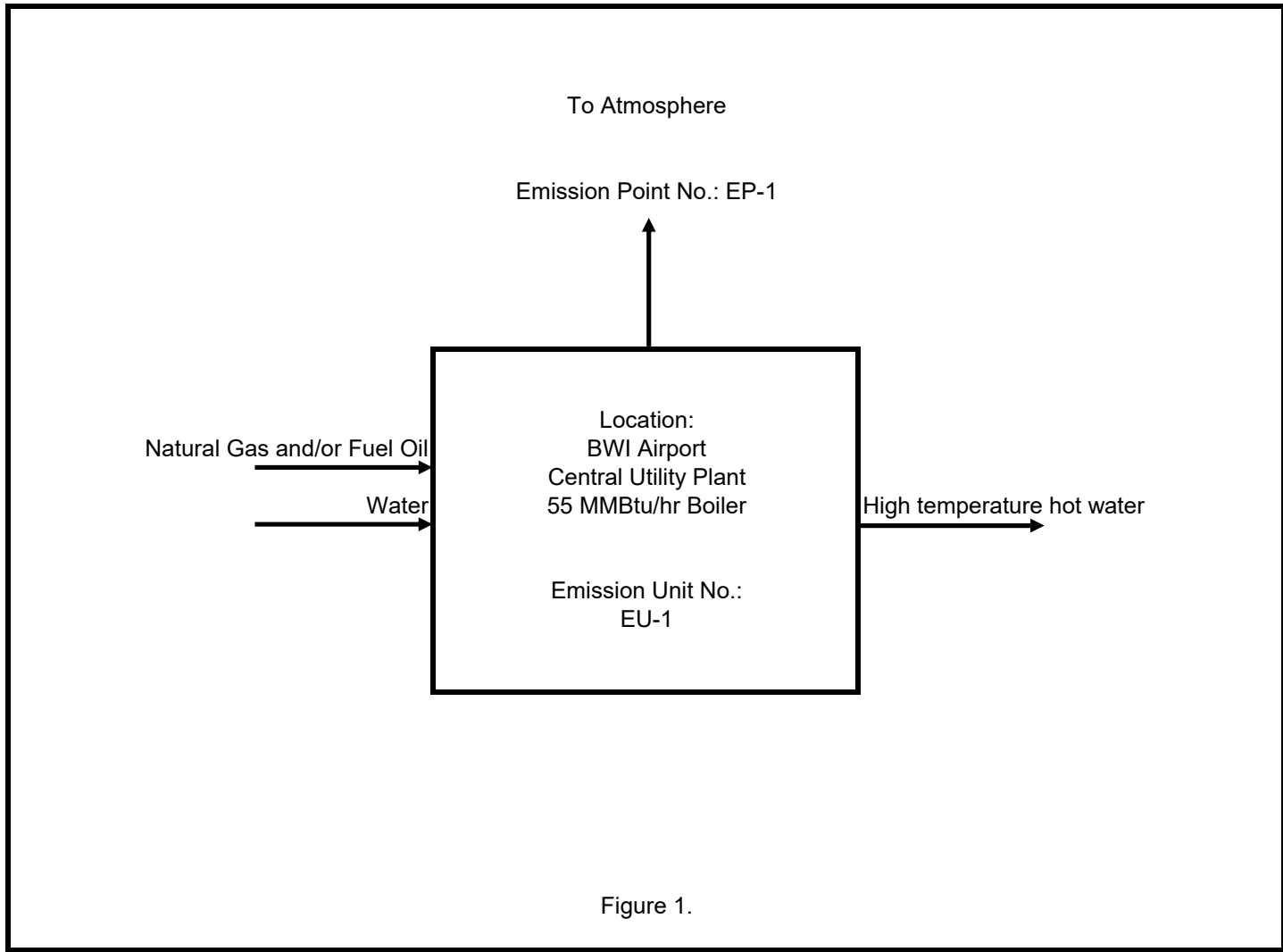
- (X) Checklist of Insignificant Activities

- (X) CAM Plan (If Applicable) N/A

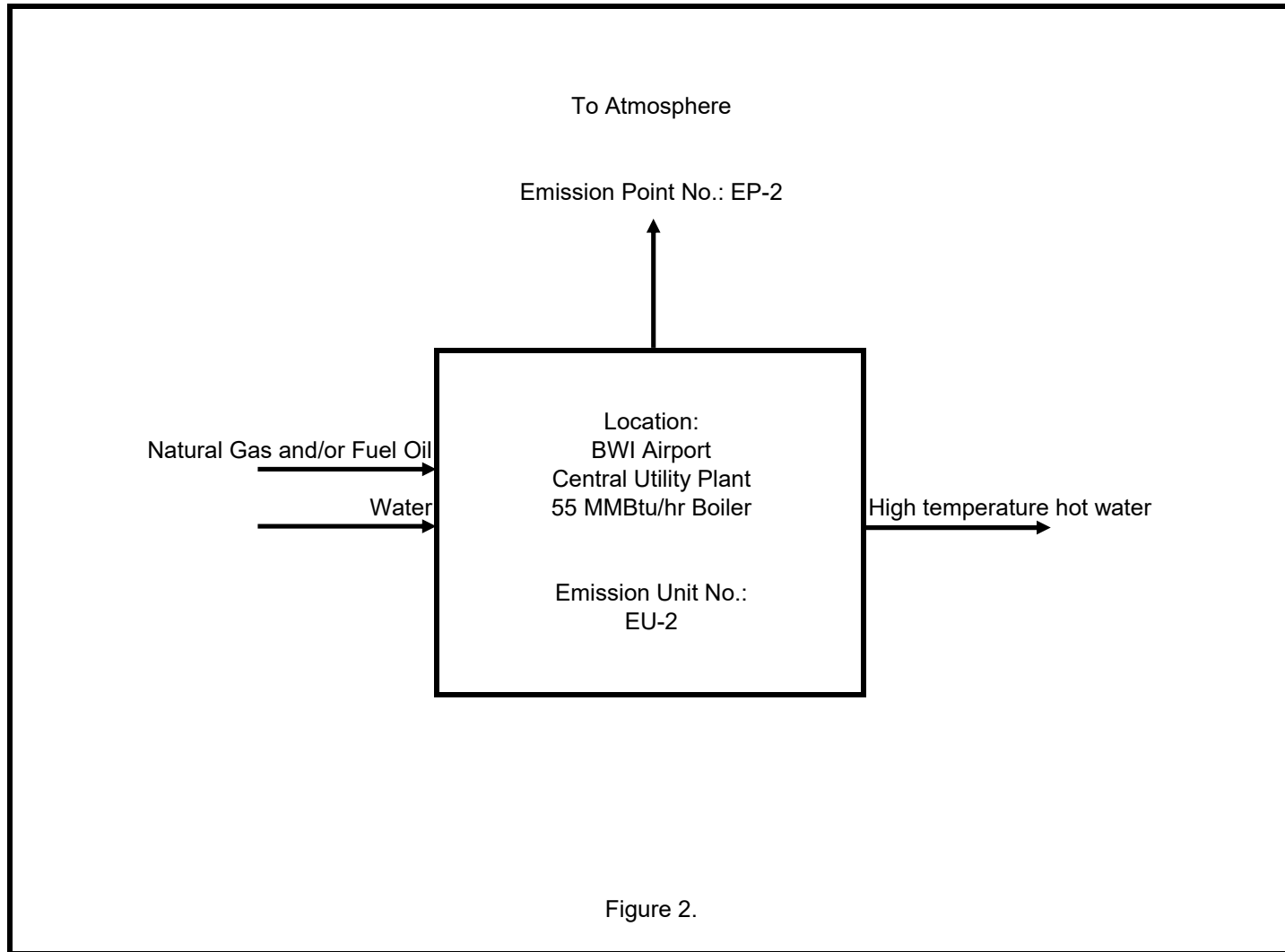
Appendix A

Flow Diagrams

**Baltimore Washington International (BWI) Thurgood Marshall Airport
Baltimore, Maryland
Process Flow Diagrams**



**Baltimore Washington International (BWI) Thurgood Marshall Airport
Baltimore, Maryland
Process Flow Diagrams**



**Baltimore Washington International (BWI) Thurgood Marshall Airport
Baltimore, Maryland
Process Flow Diagrams**

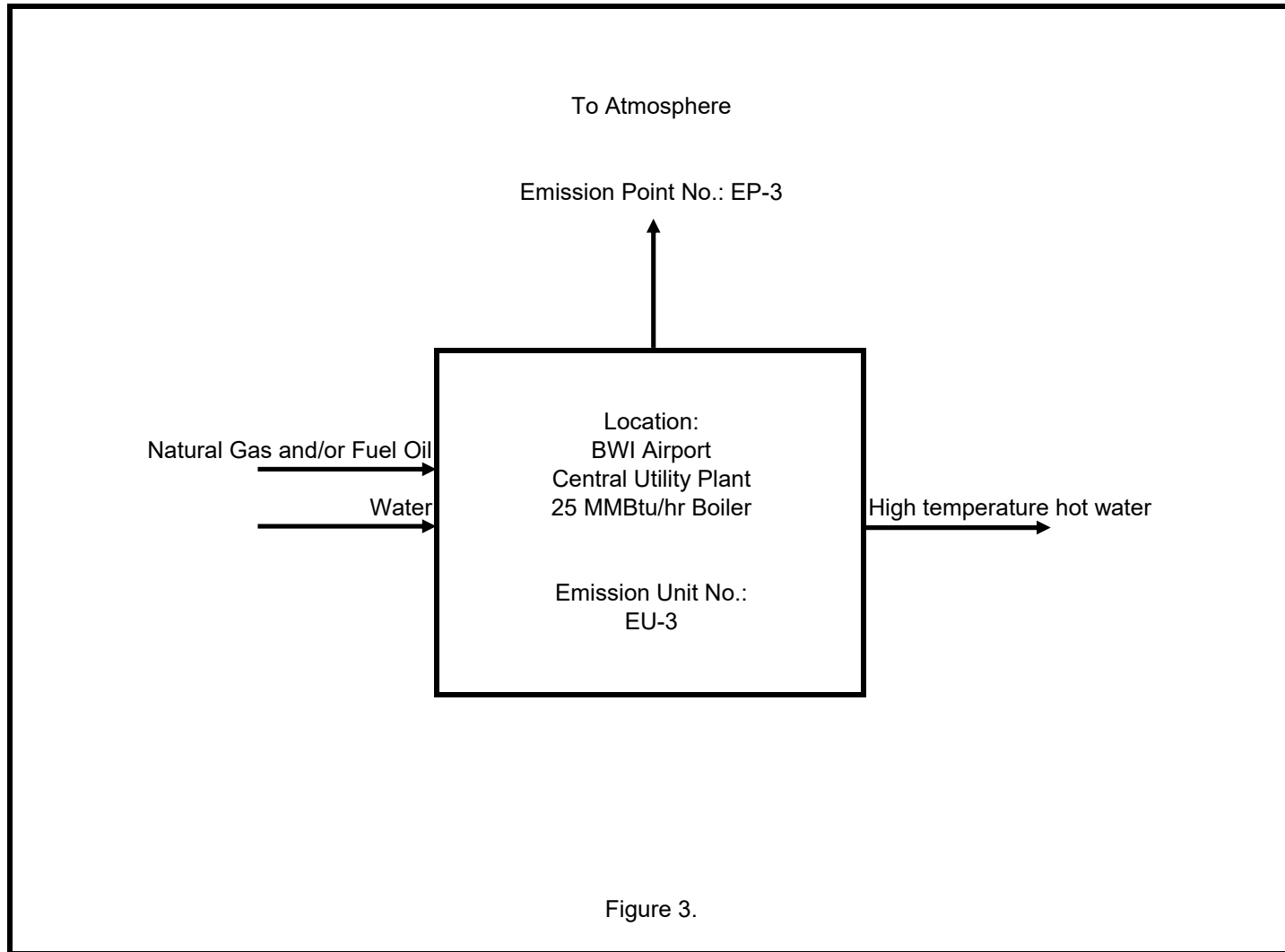


Figure 3.

**Baltimore Washington International (BWI) Thurgood Marshall Airport
Baltimore, Maryland
Process Flow Diagrams**

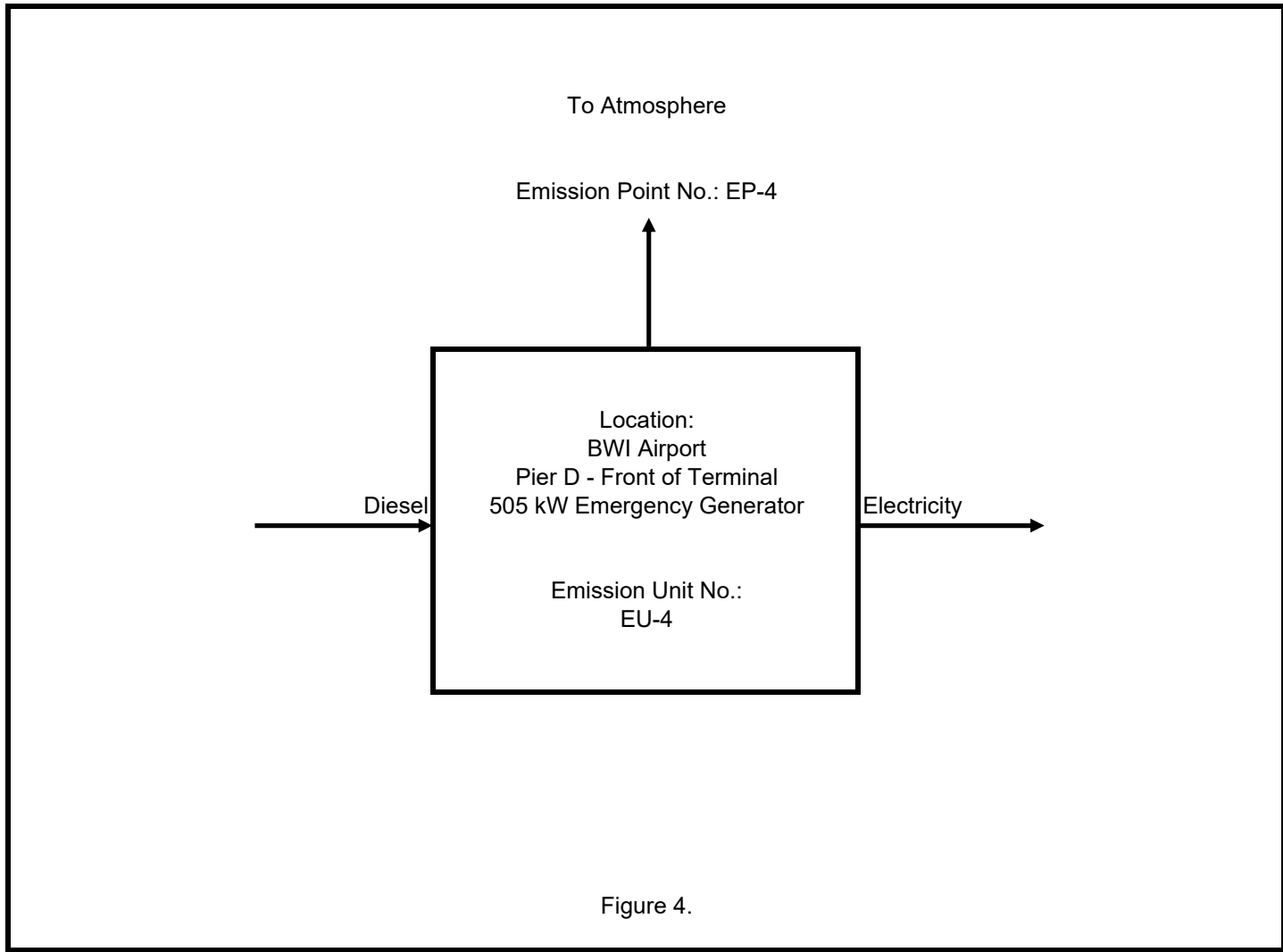


Figure 4.

**Baltimore Washington International (BWI) Thurgood Marshall Airport
Baltimore, Maryland
Process Flow Diagrams**

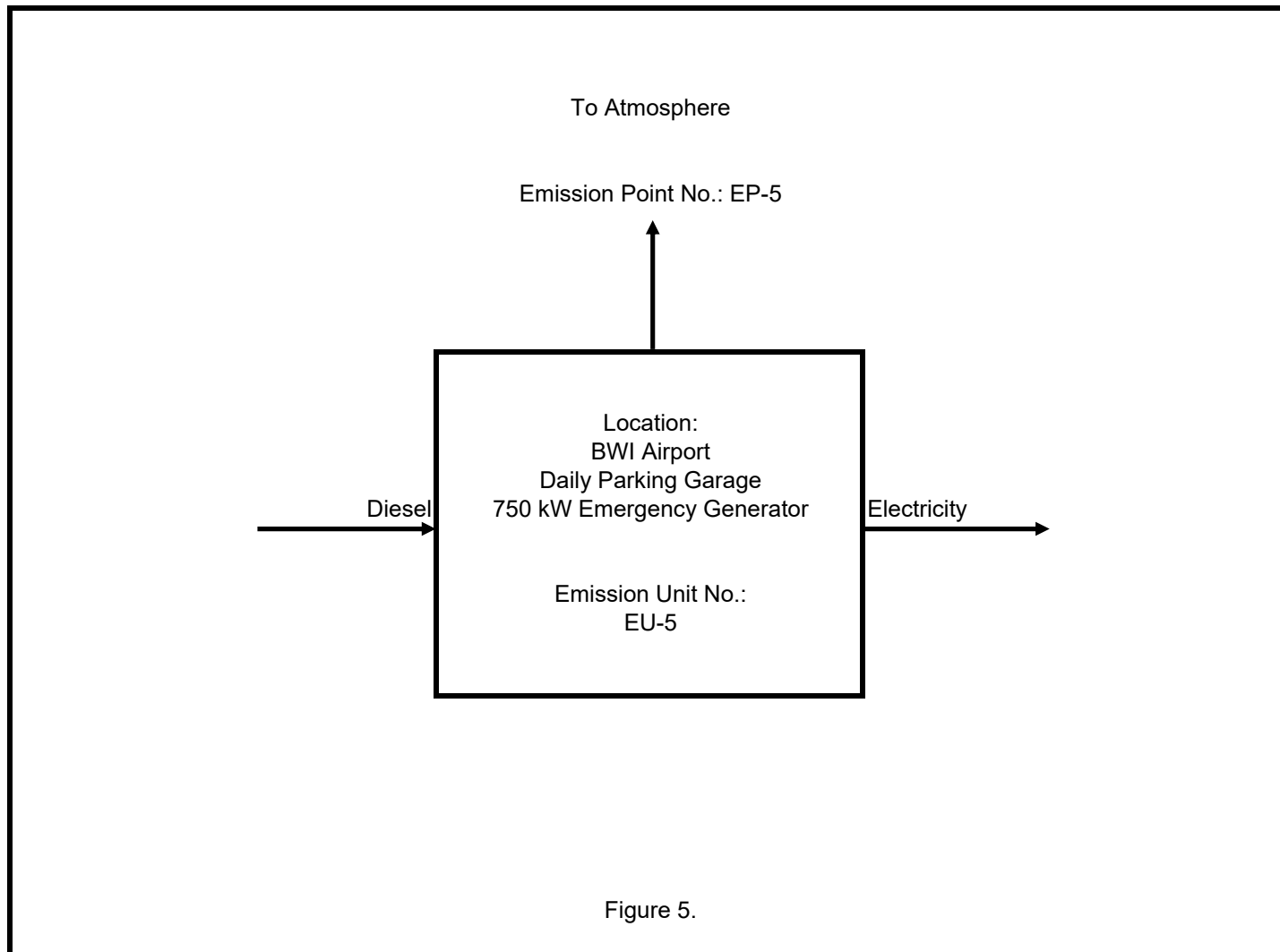
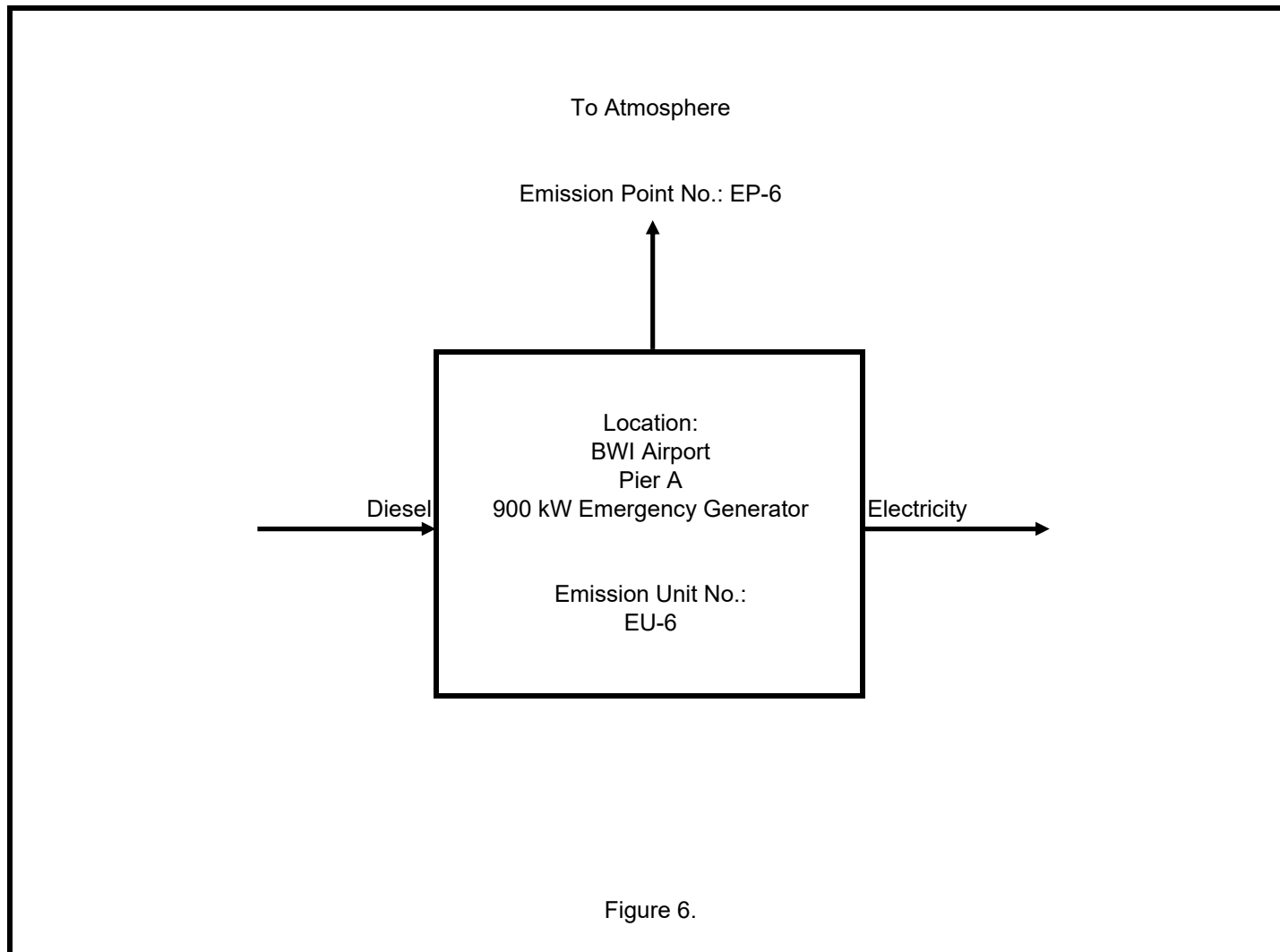


Figure 5.

**Baltimore Washington International (BWI) Thurgood Marshall Airport
Baltimore, Maryland
Process Flow Diagrams**



**Baltimore Washington International (BWI) Thurgood Marshall Airport
Baltimore, Maryland
Process Flow Diagrams**

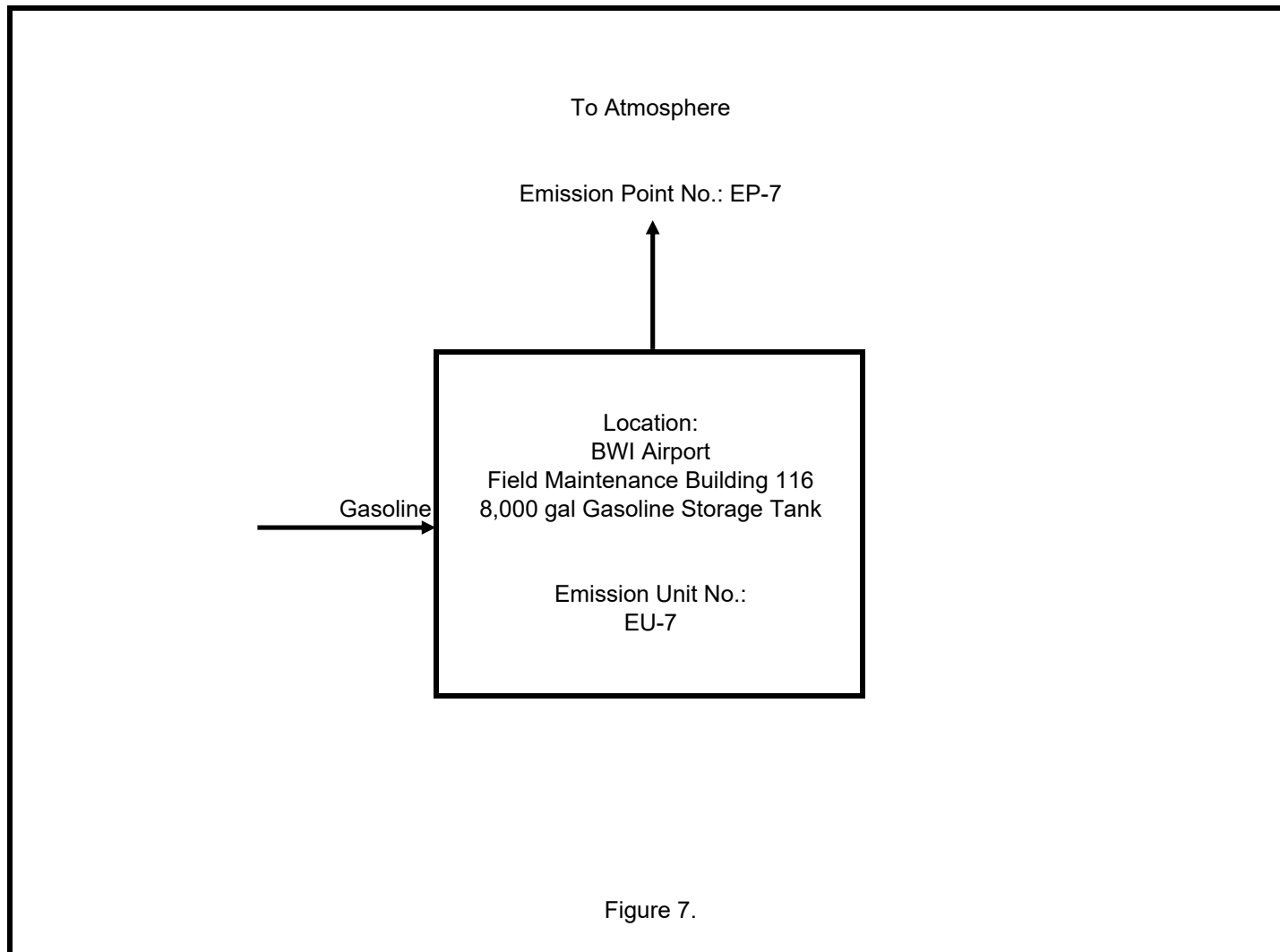


Figure 7.

**Baltimore Washington International (BWI) Thurgood Marshall Airport
Baltimore, Maryland
Process Flow Diagrams**

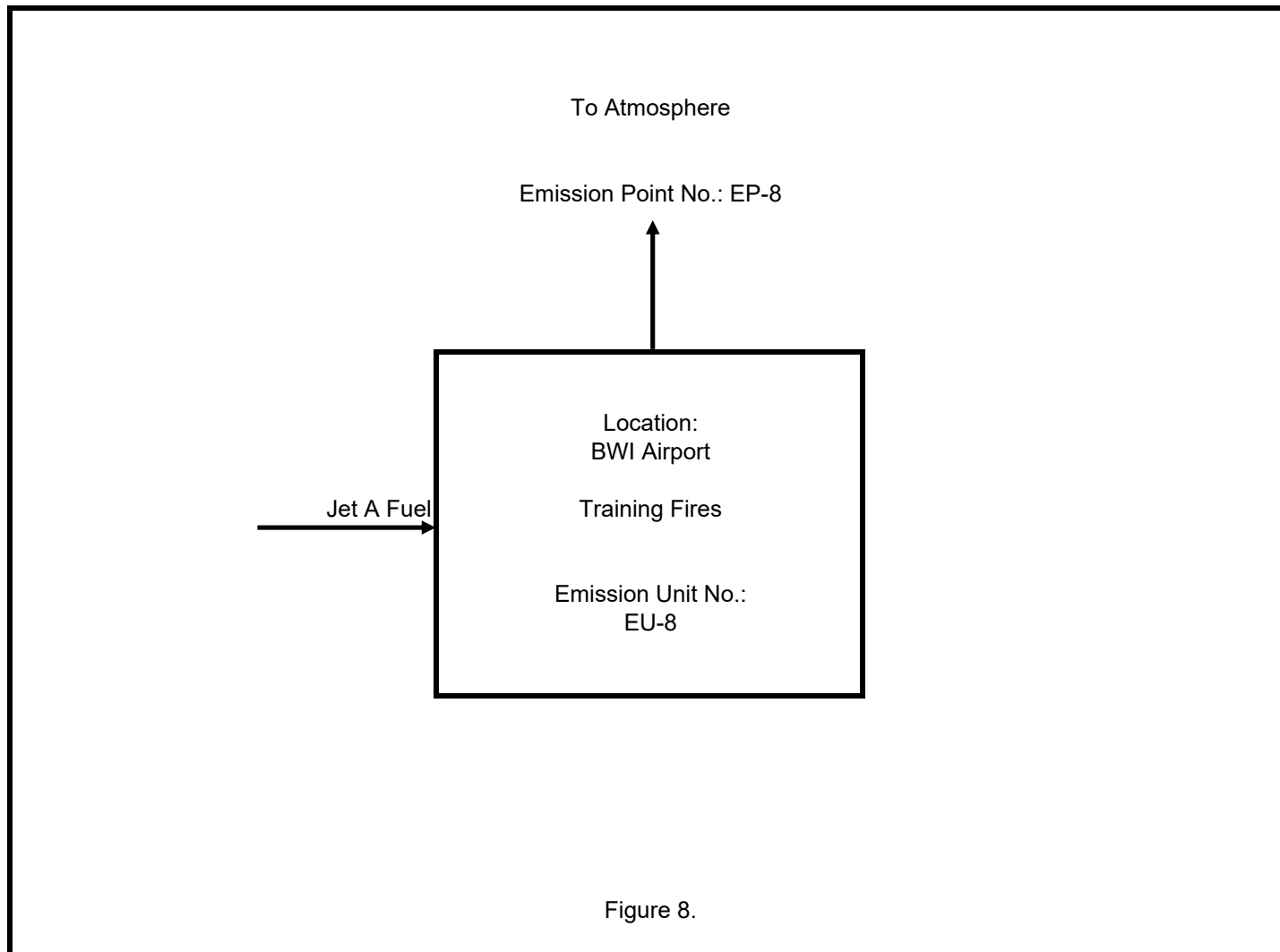
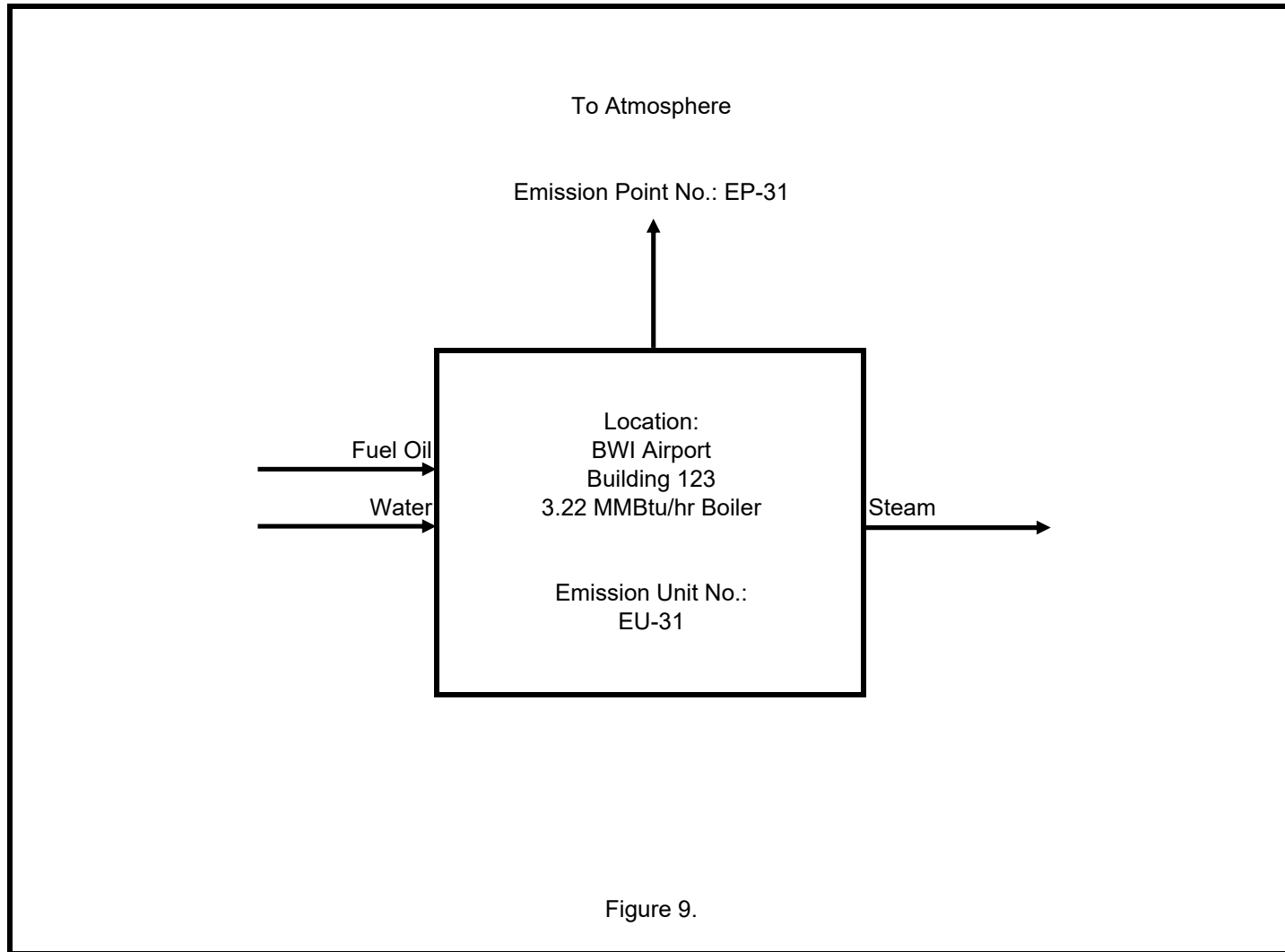
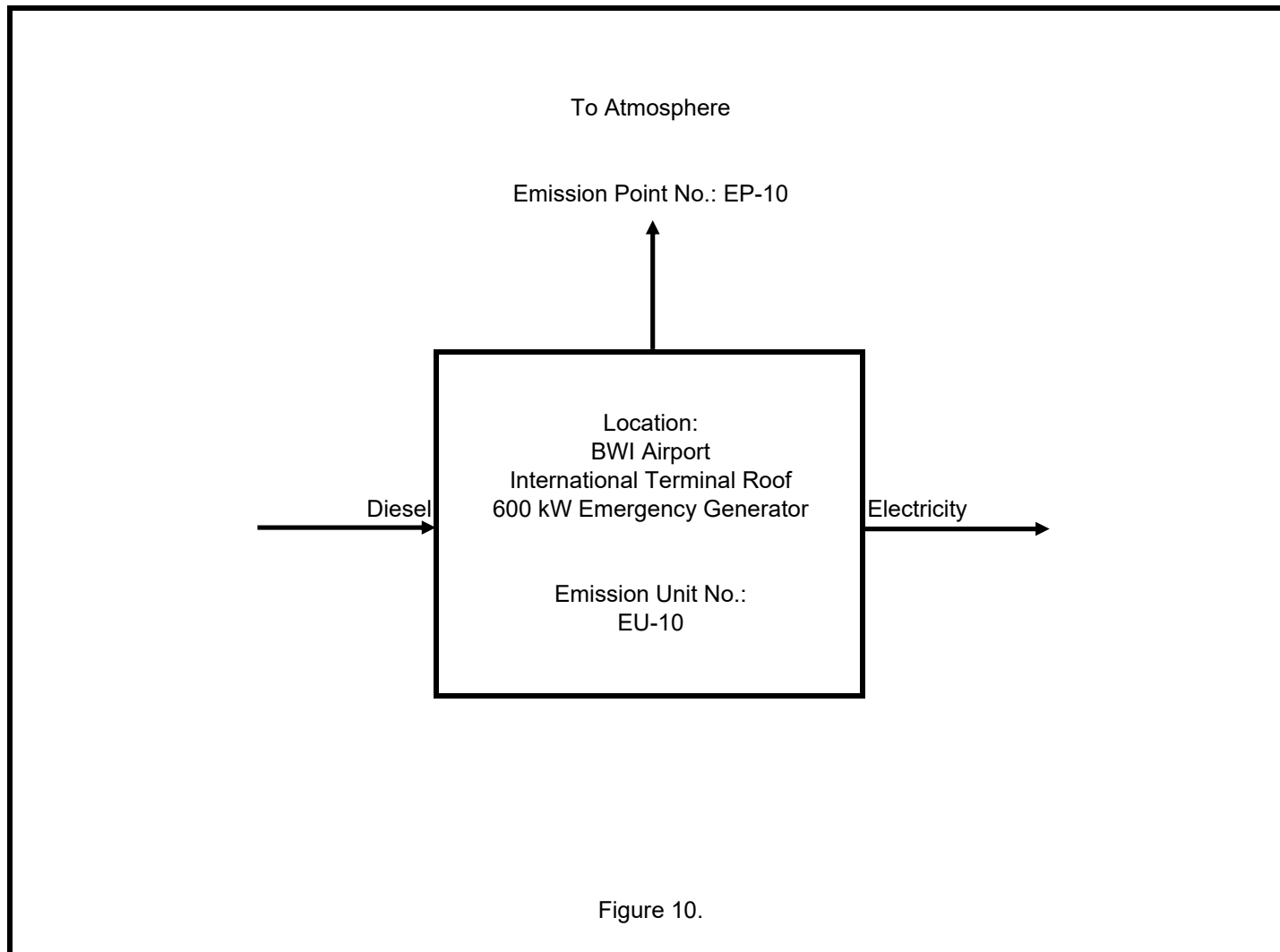


Figure 8.

**Baltimore Washington International (BWI) Thurgood Marshall Airport
Baltimore, Maryland
Process Flow Diagrams**



**Baltimore Washington International (BWI) Thurgood Marshall Airport
Baltimore, Maryland
Process Flow Diagrams**



**Baltimore Washington International (BWI) Thurgood Marshall Airport
Baltimore, Maryland
Process Flow Diagrams**

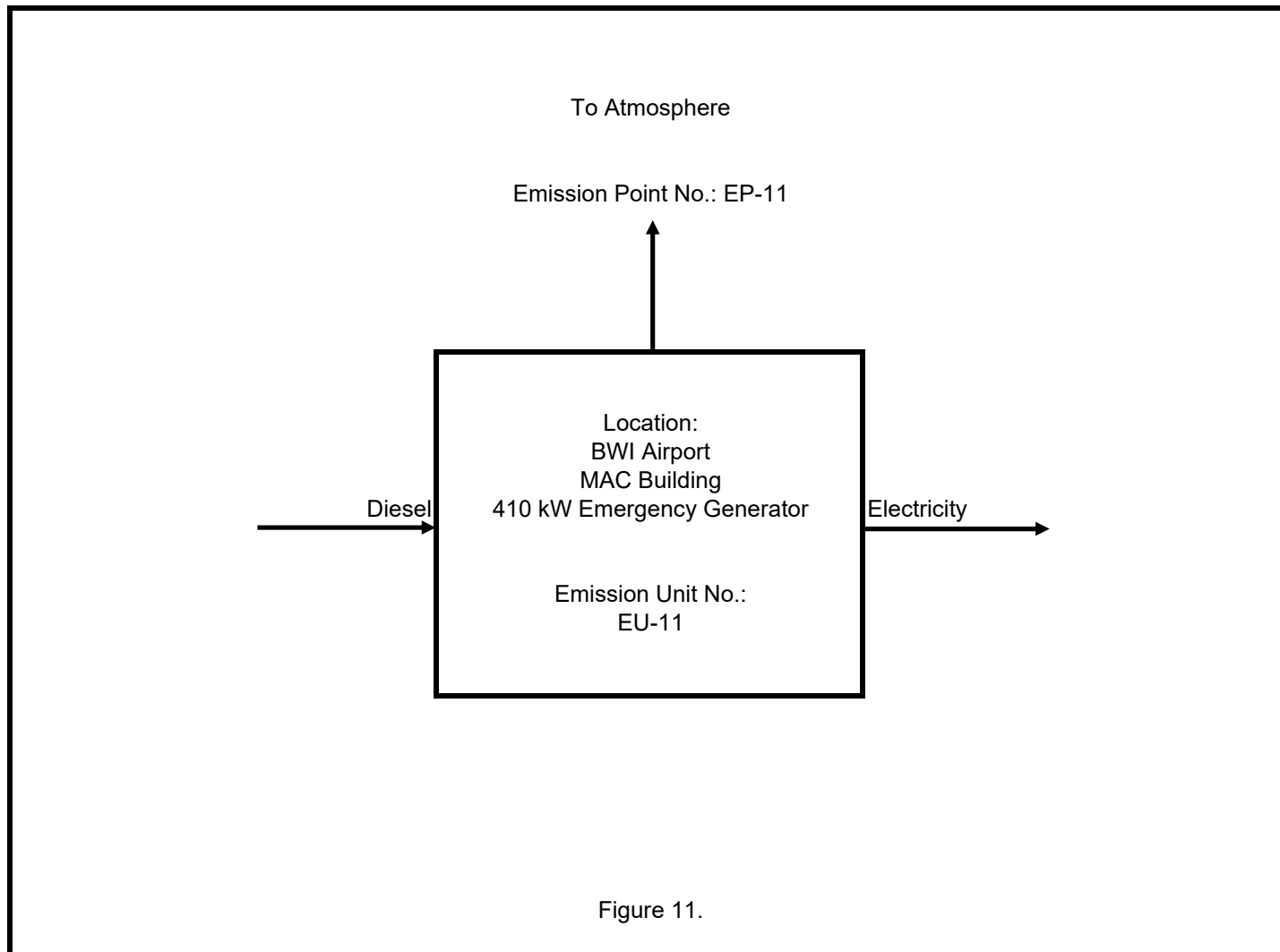
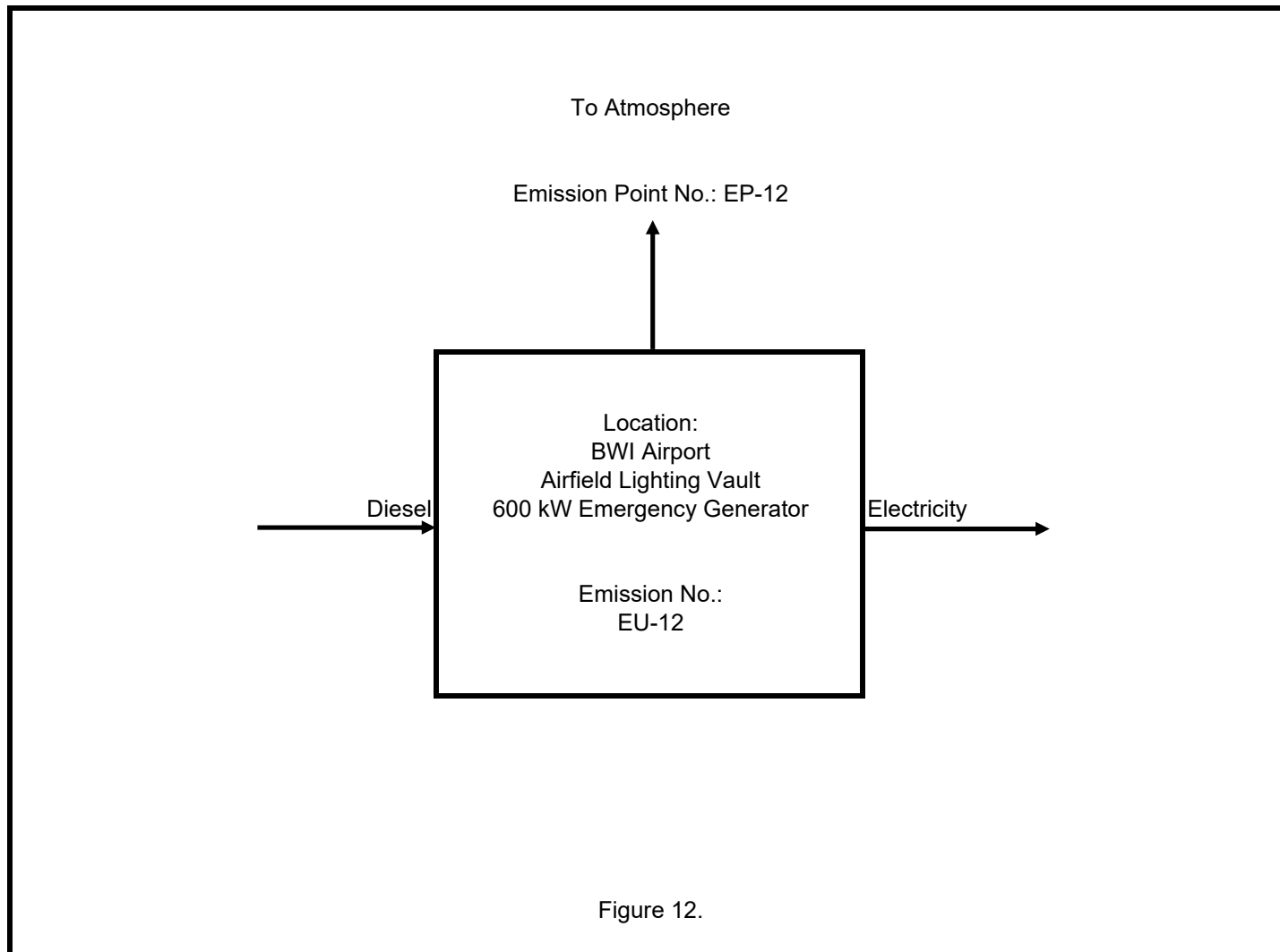


Figure 11.

**Baltimore Washington International (BWI) Thurgood Marshall Airport
Baltimore, Maryland
Process Flow Diagrams**



**Baltimore Washington International (BWI) Thurgood Marshall Airport
Baltimore, Maryland
Process Flow Diagrams**

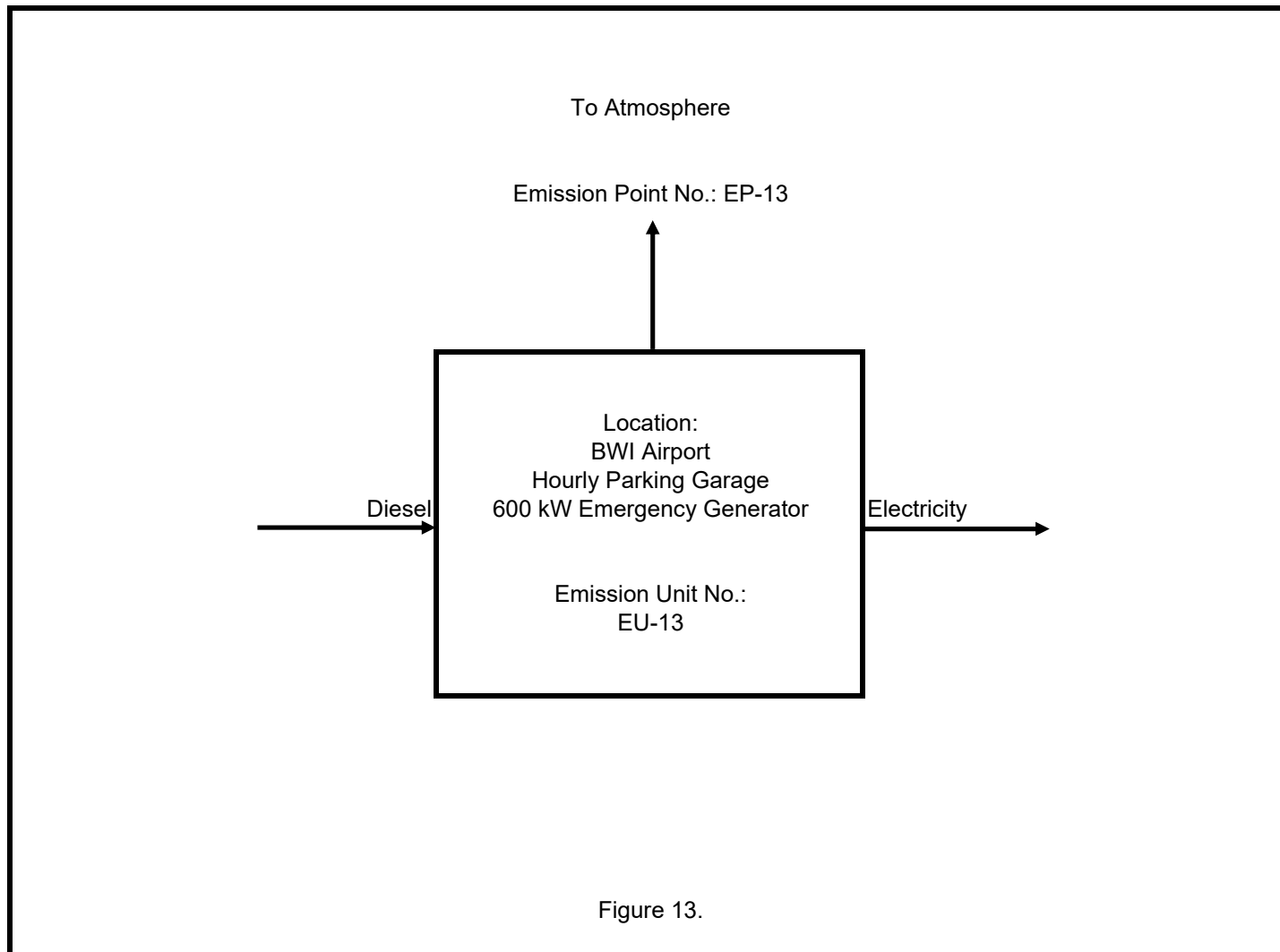
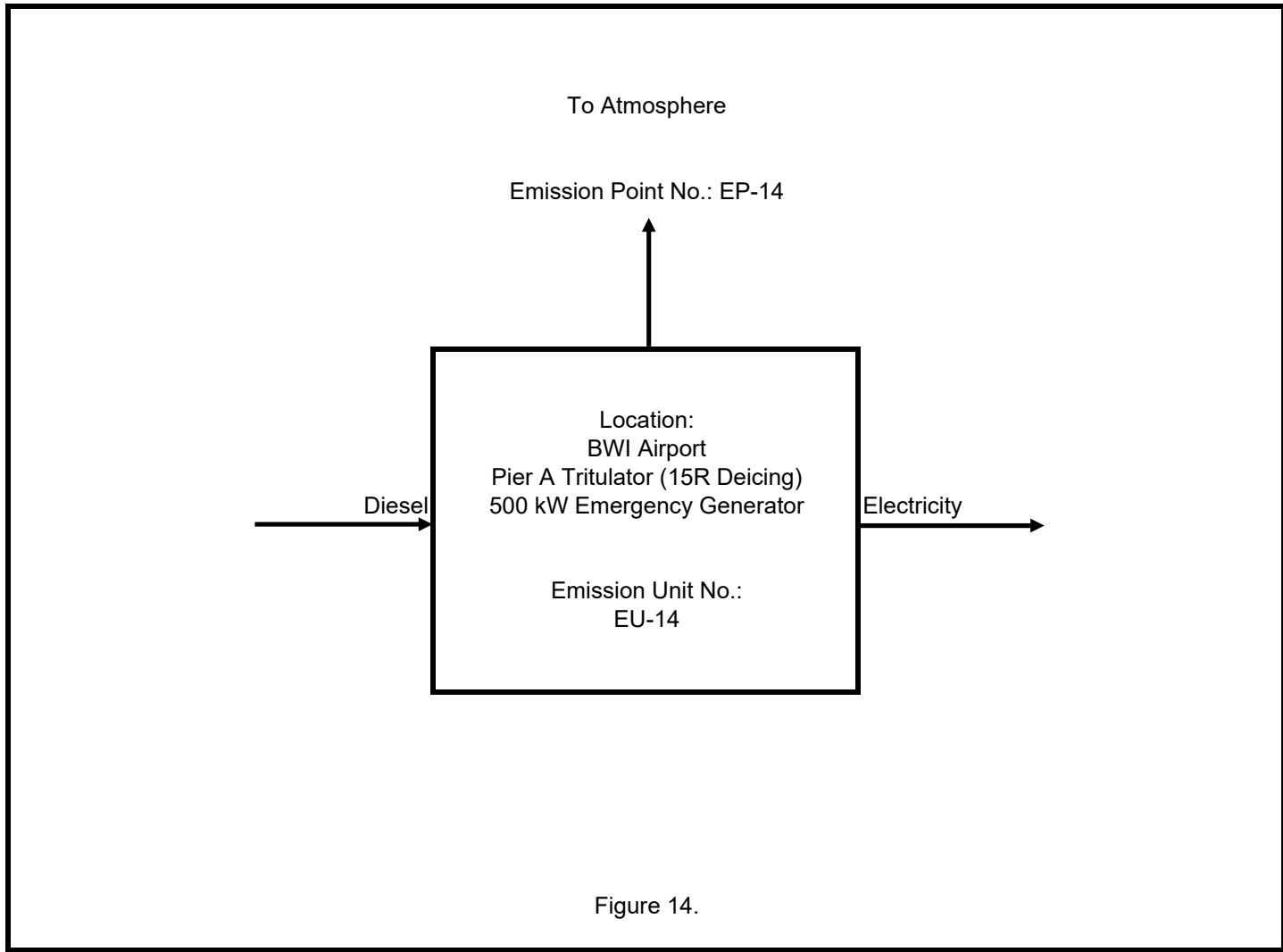
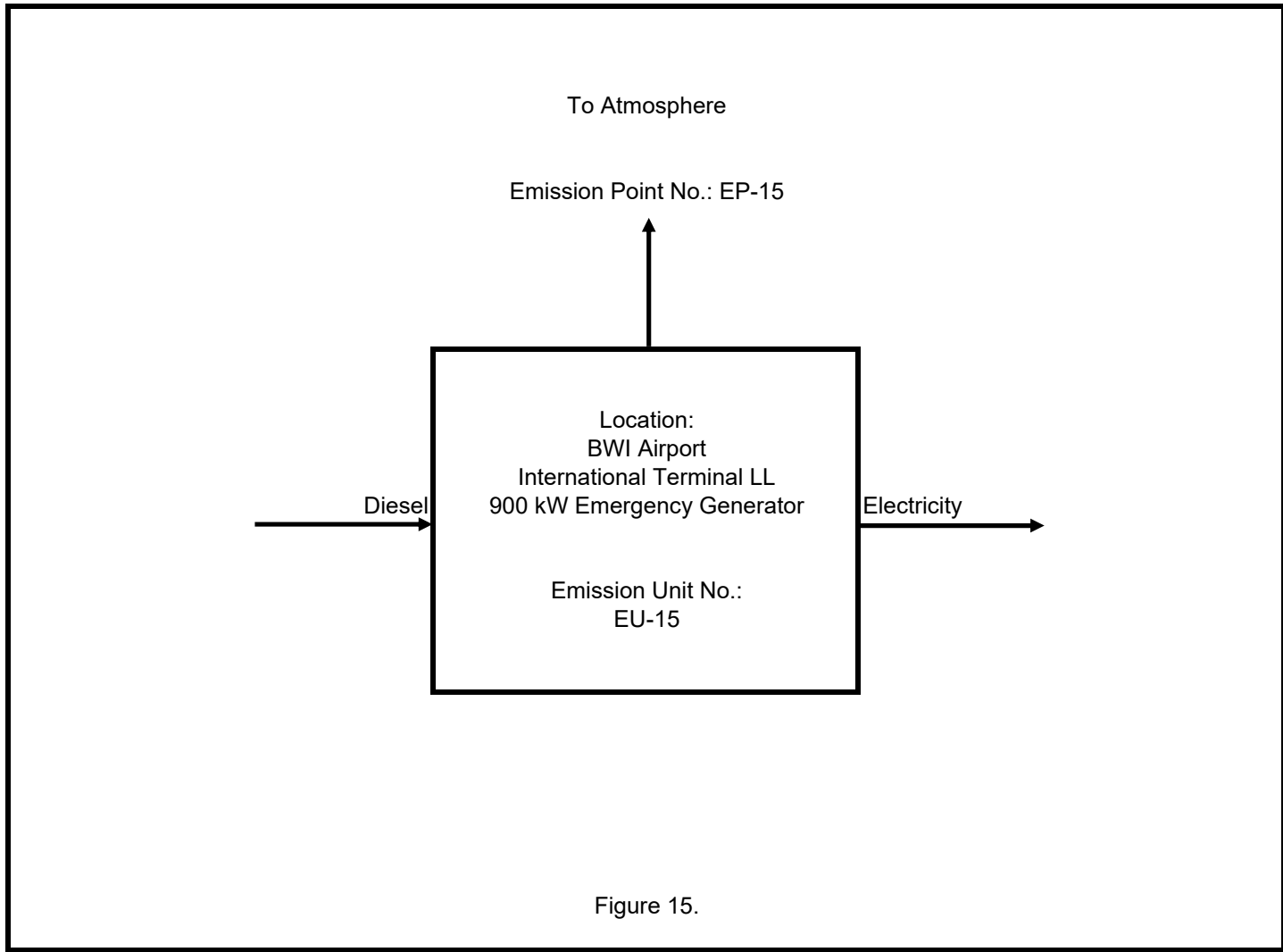


Figure 13.

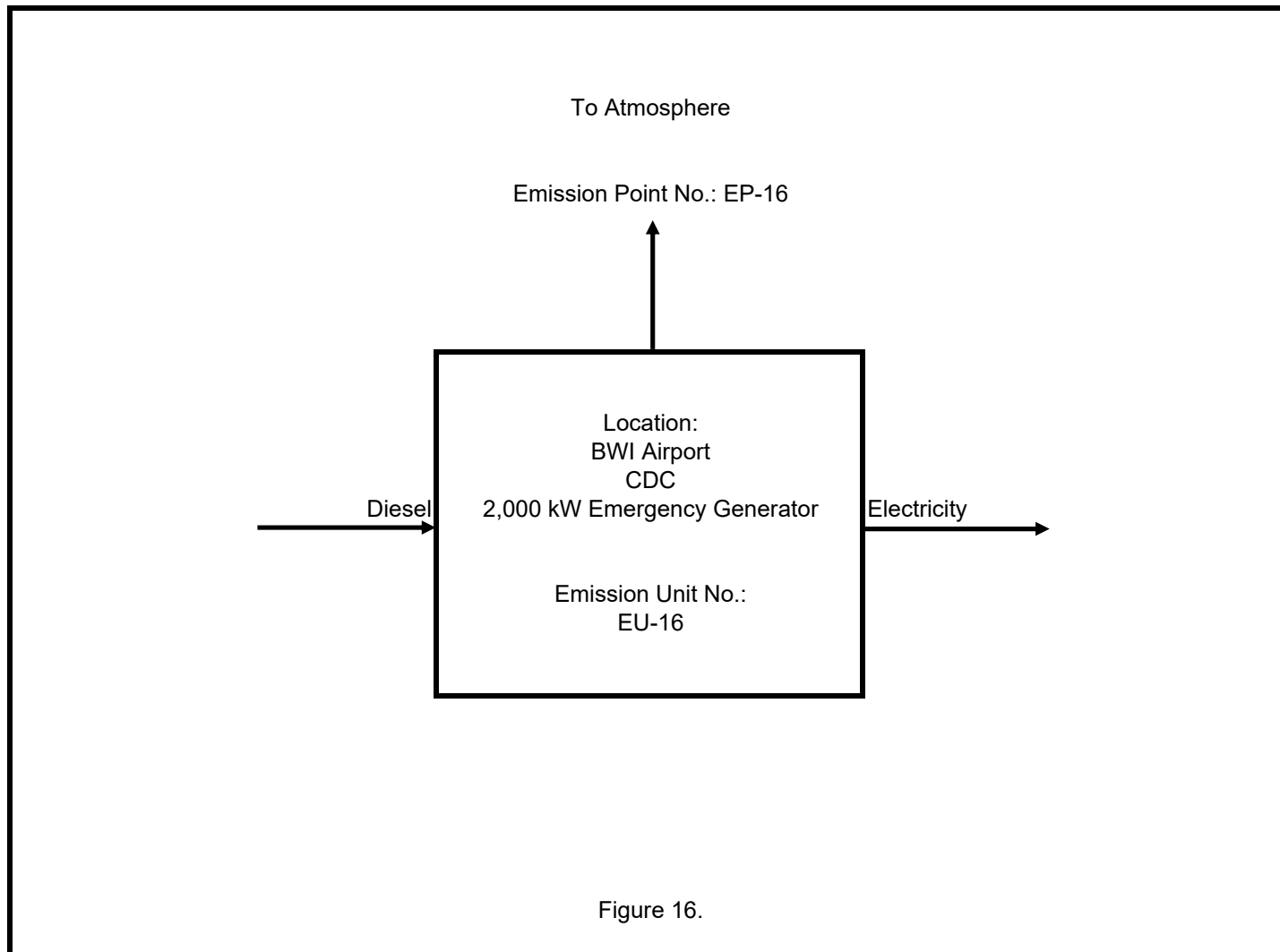
**Baltimore Washington International (BWI) Thurgood Marshall Airport
Baltimore, Maryland
Process Flow Diagrams**



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Process Flow Diagrams**



**Baltimore Washington International (BWI) Thurgood Marshall Airport
Baltimore, Maryland
Process Flow Diagrams**

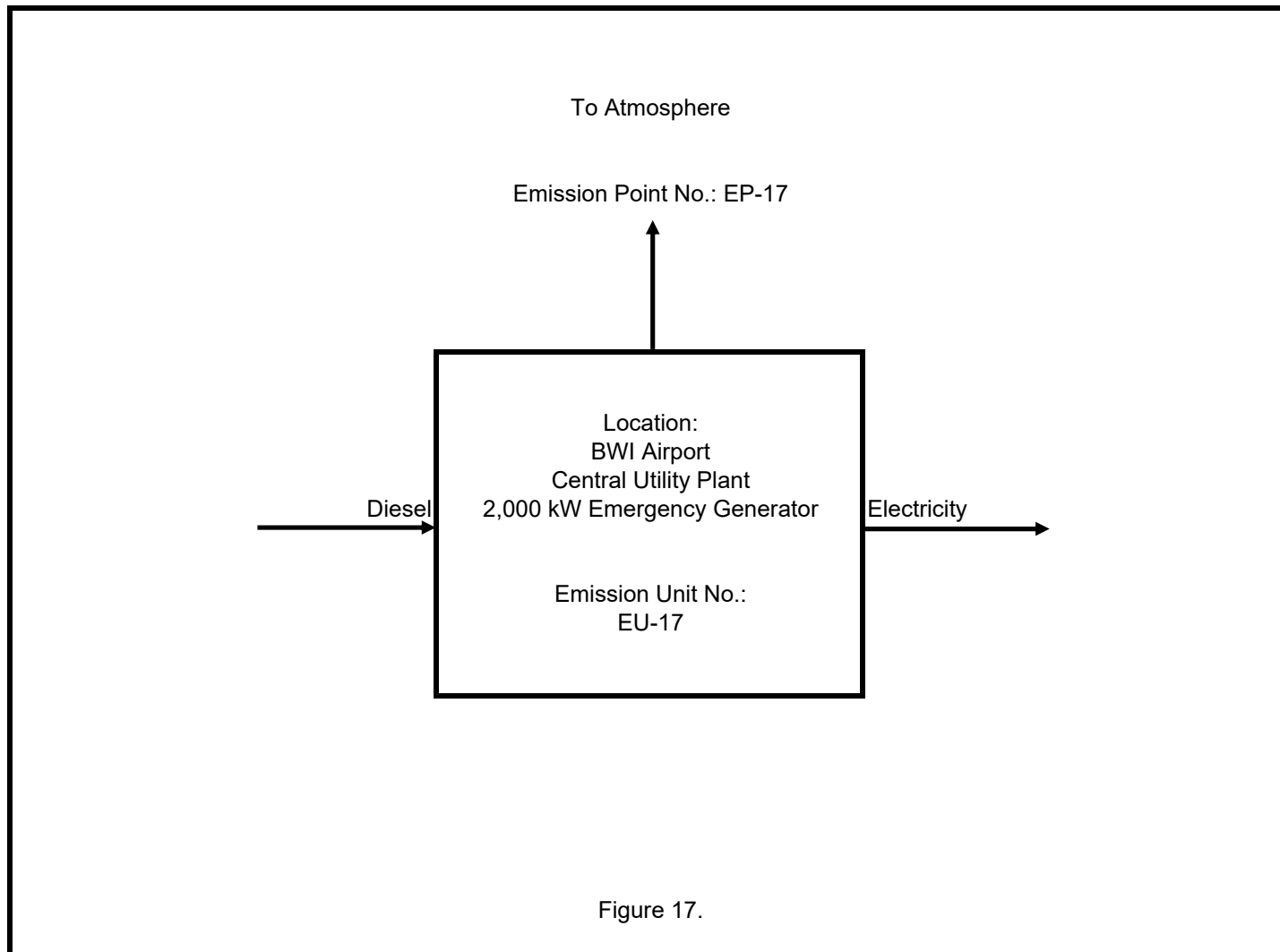


Figure 17.

**Baltimore Washington International (BWI) Thurgood Marshall Airport
Baltimore, Maryland
Process Flow Diagrams**

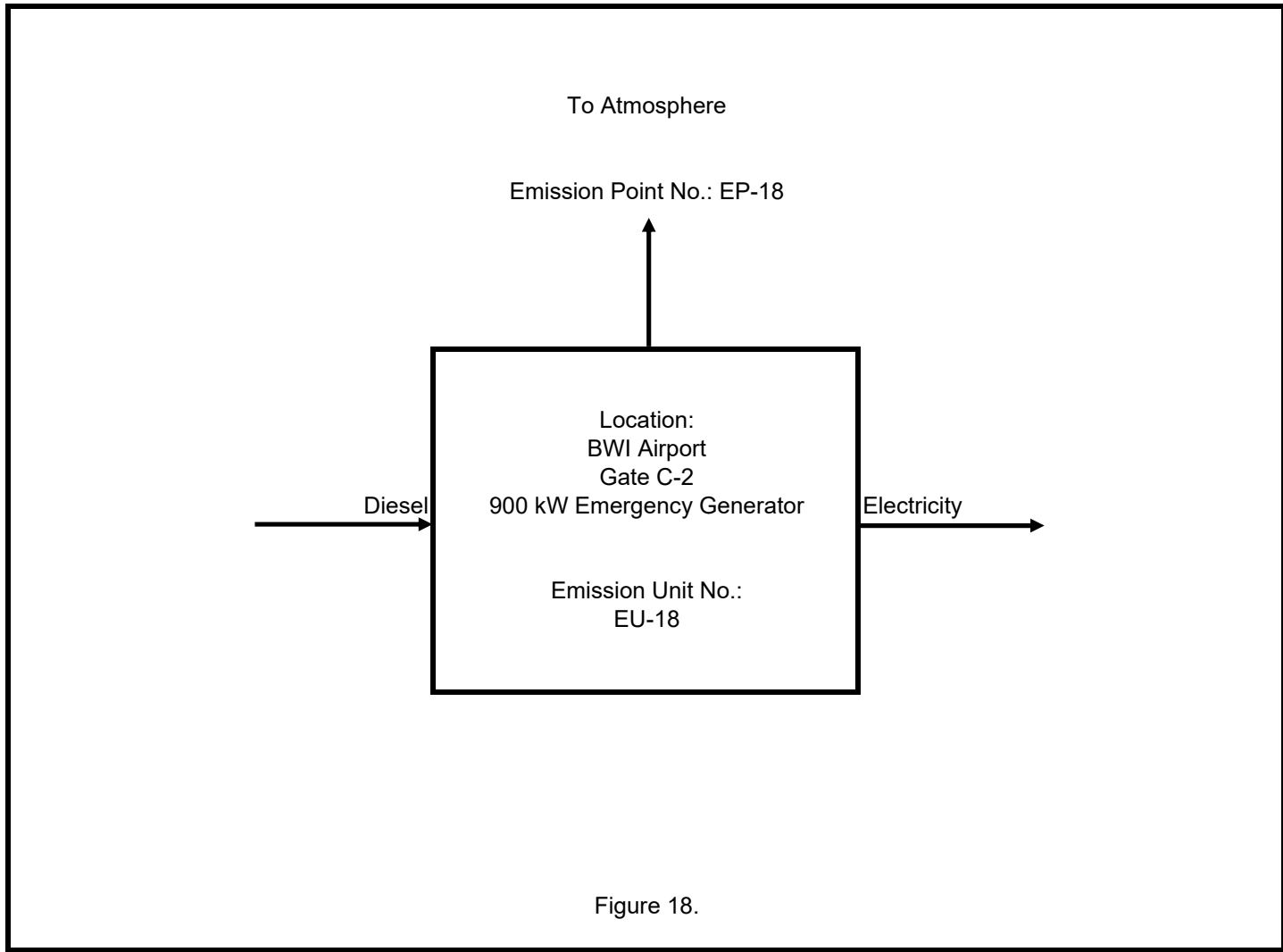
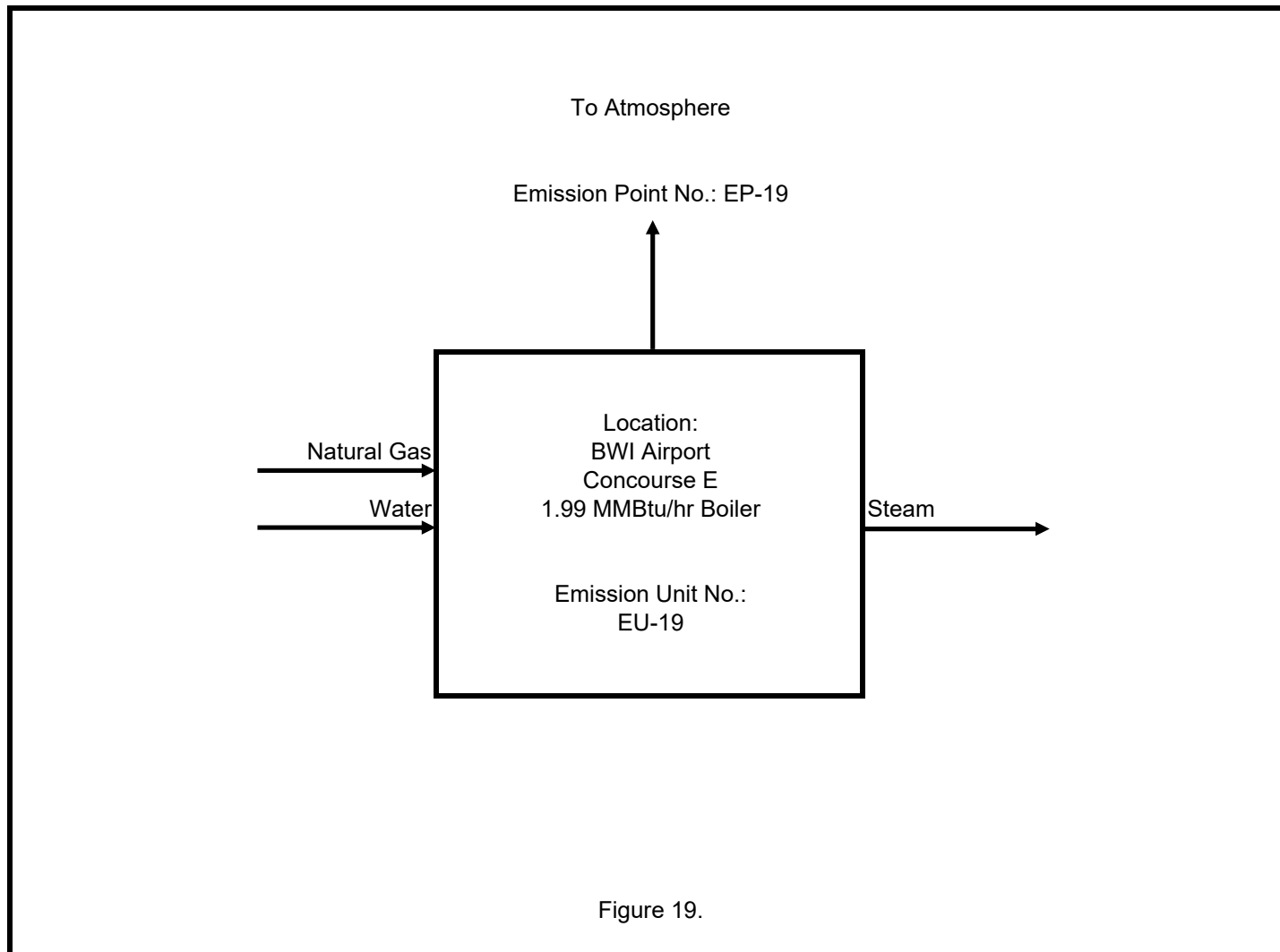
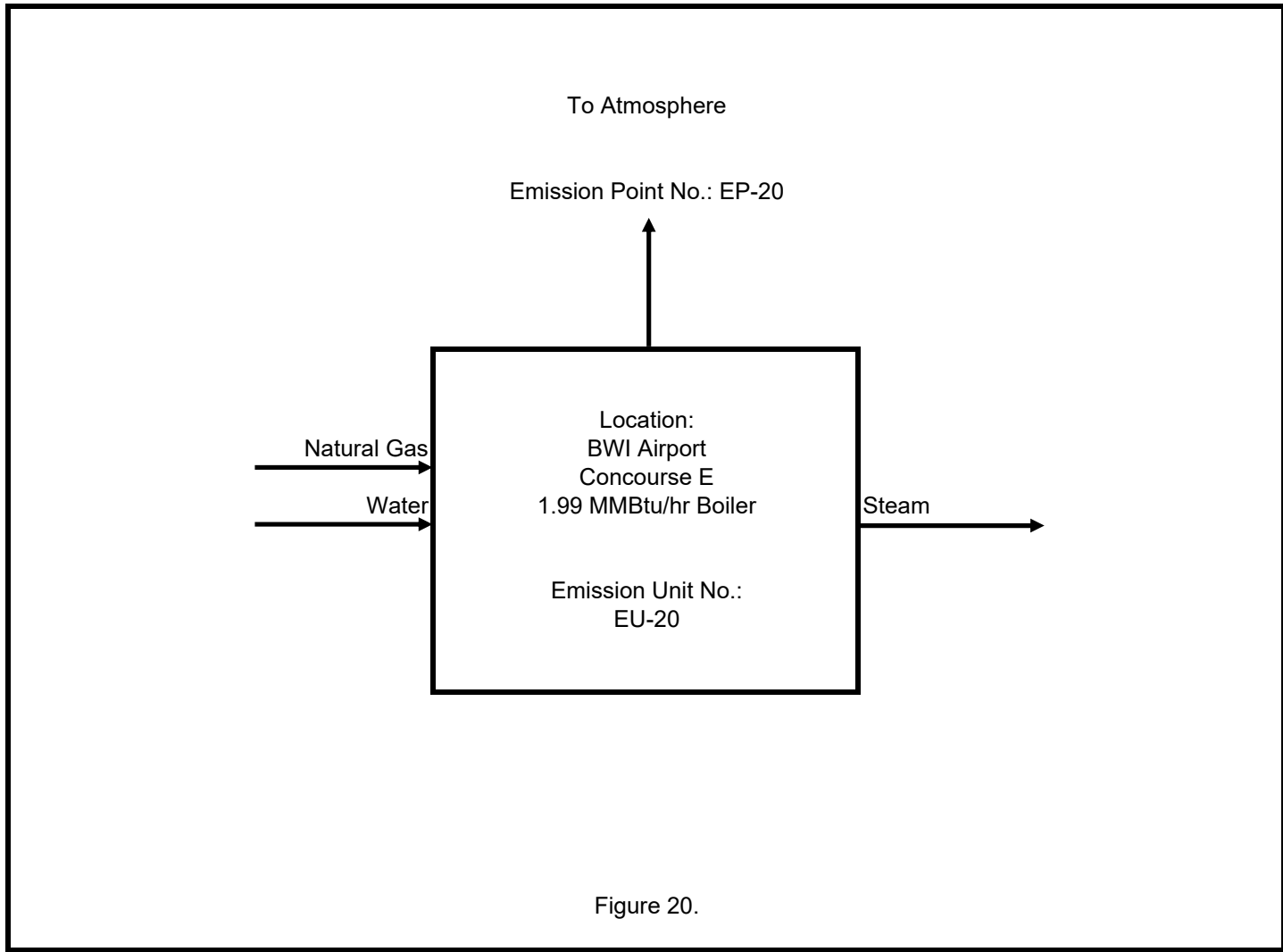


Figure 18.

**Baltimore Washington International (BWI) Thurgood Marshall Airport
Baltimore, Maryland
Process Flow Diagrams**



**Baltimore Washington International (BWI) Thurgood Marshall Airport
Baltimore, Maryland
Process Flow Diagrams**



**Baltimore Washington International (BWI) Thurgood Marshall Airport
Baltimore, Maryland
Process Flow Diagrams**

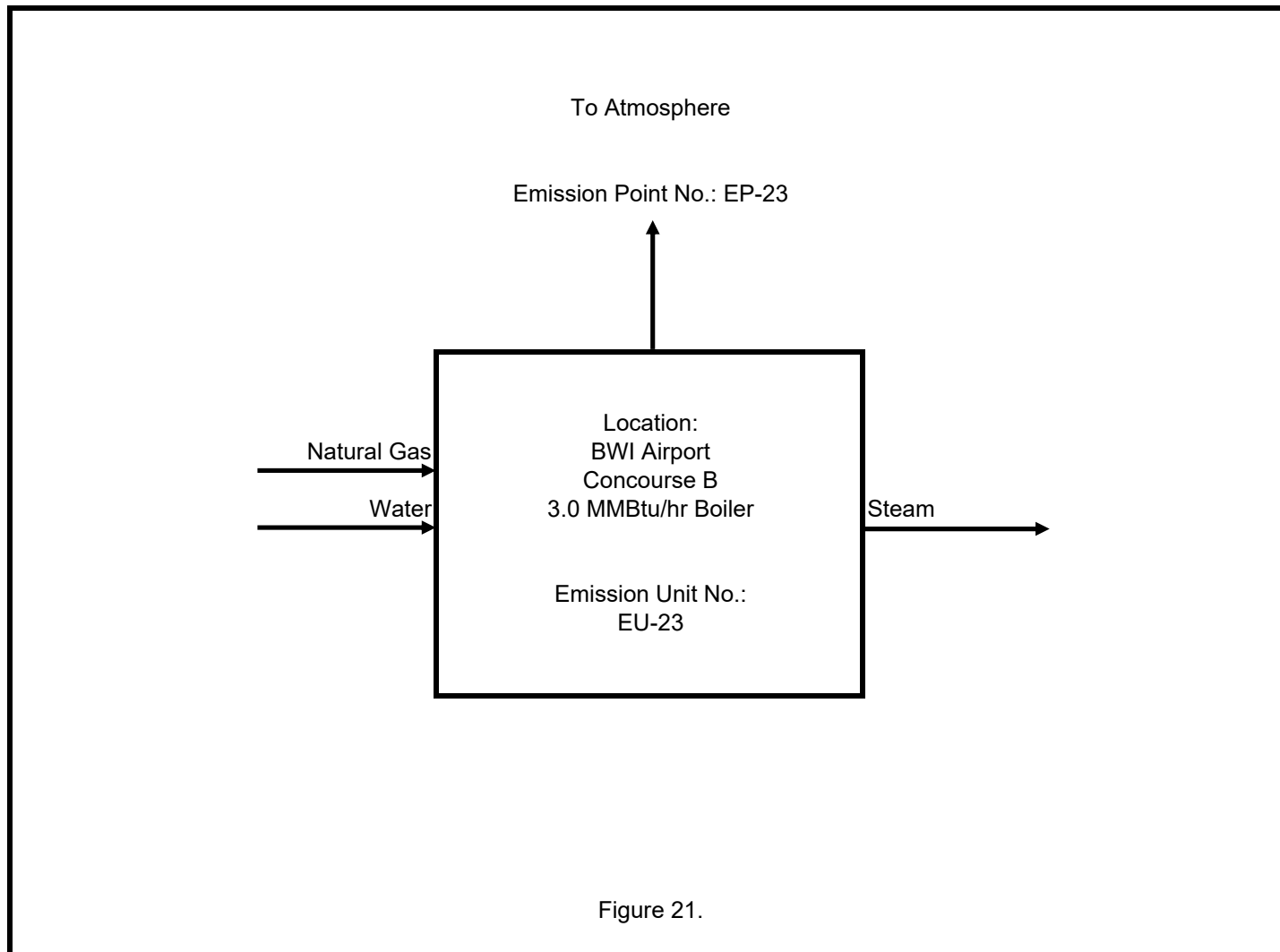
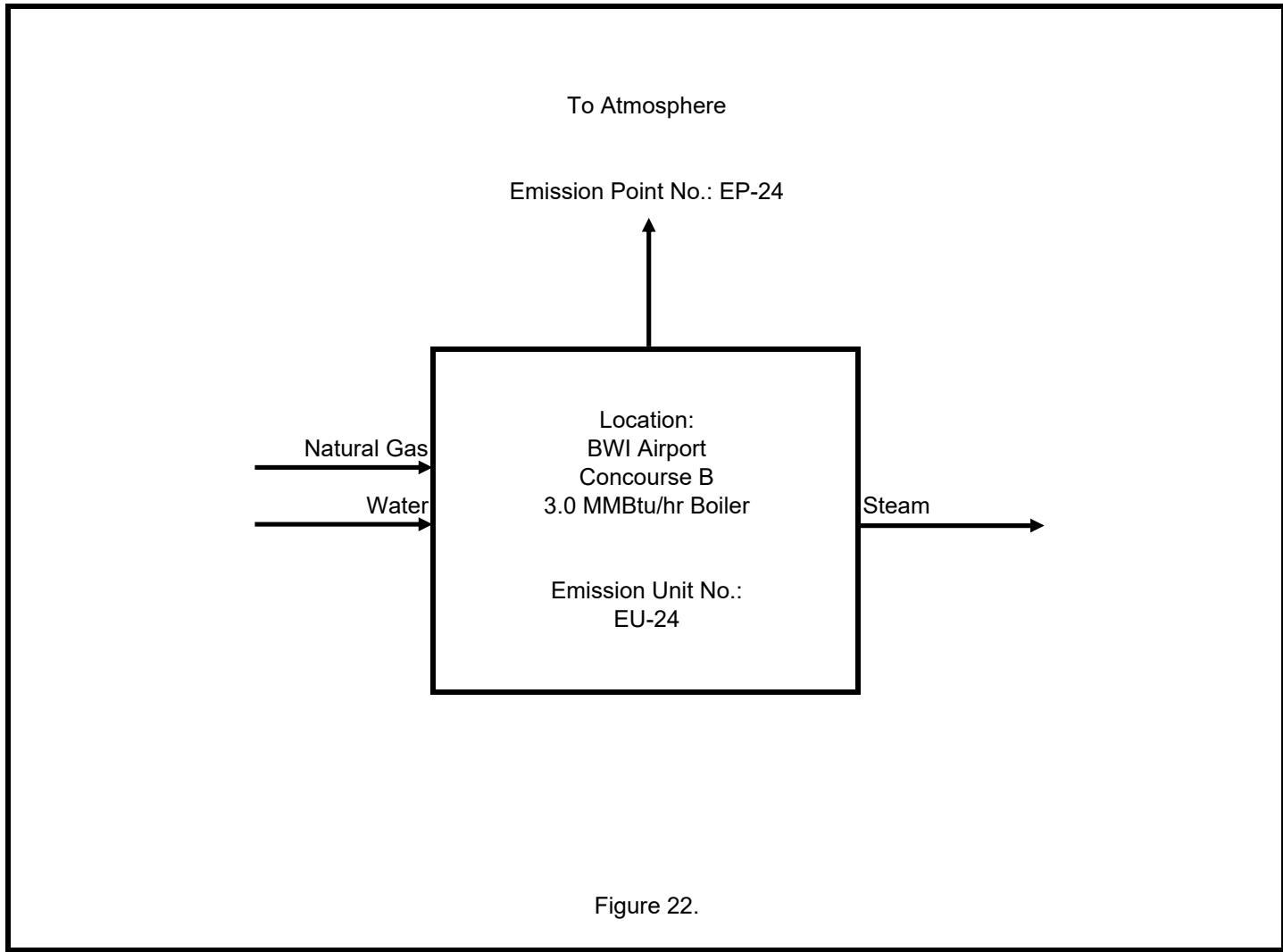
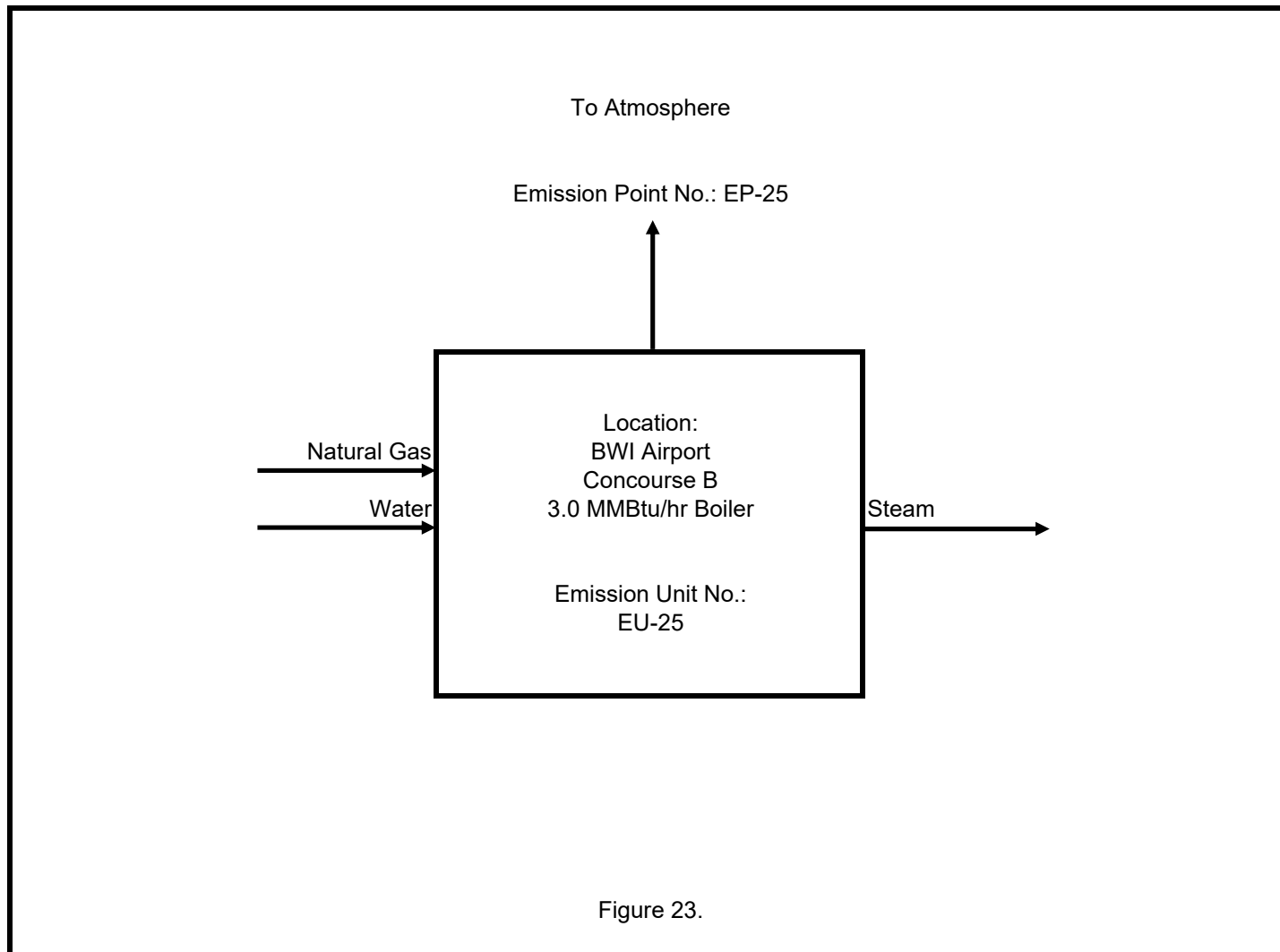


Figure 21.

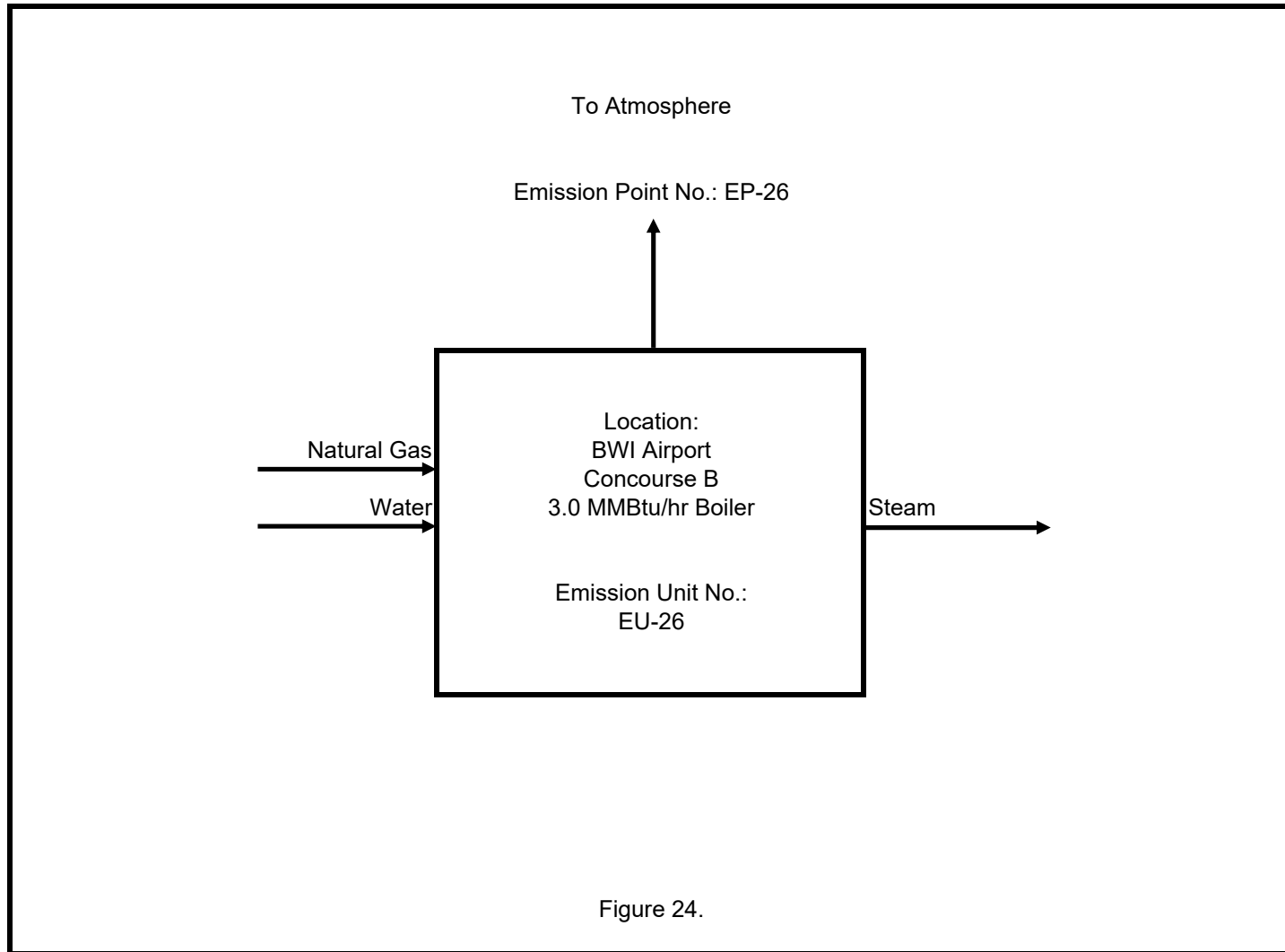
**Baltimore Washington International (BWI) Thurgood Marshall Airport
Baltimore, Maryland
Process Flow Diagrams**



**Baltimore Washington International (BWI) Thurgood Marshall Airport
Baltimore, Maryland
Process Flow Diagrams**



**Baltimore Washington International (BWI) Thurgood Marshall Airport
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Process Flow Diagrams**



**Baltimore Washington International (BWI) Thurgood Marshall Airport
Baltimore, Maryland
Process Flow Diagrams**

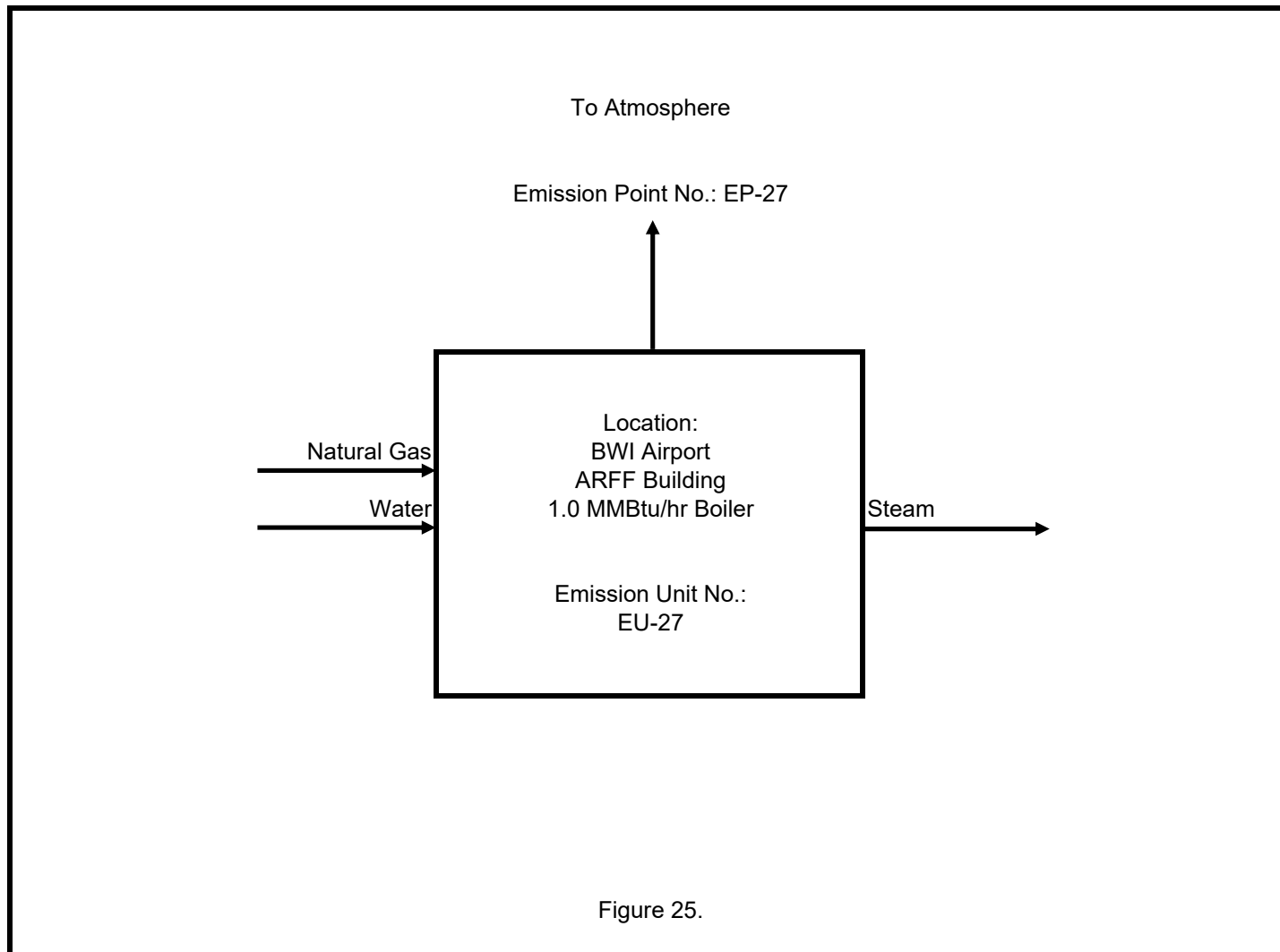


Figure 25.

**Baltimore Washington International (BWI) Thurgood Marshall Airport
Baltimore, Maryland
Process Flow Diagrams**

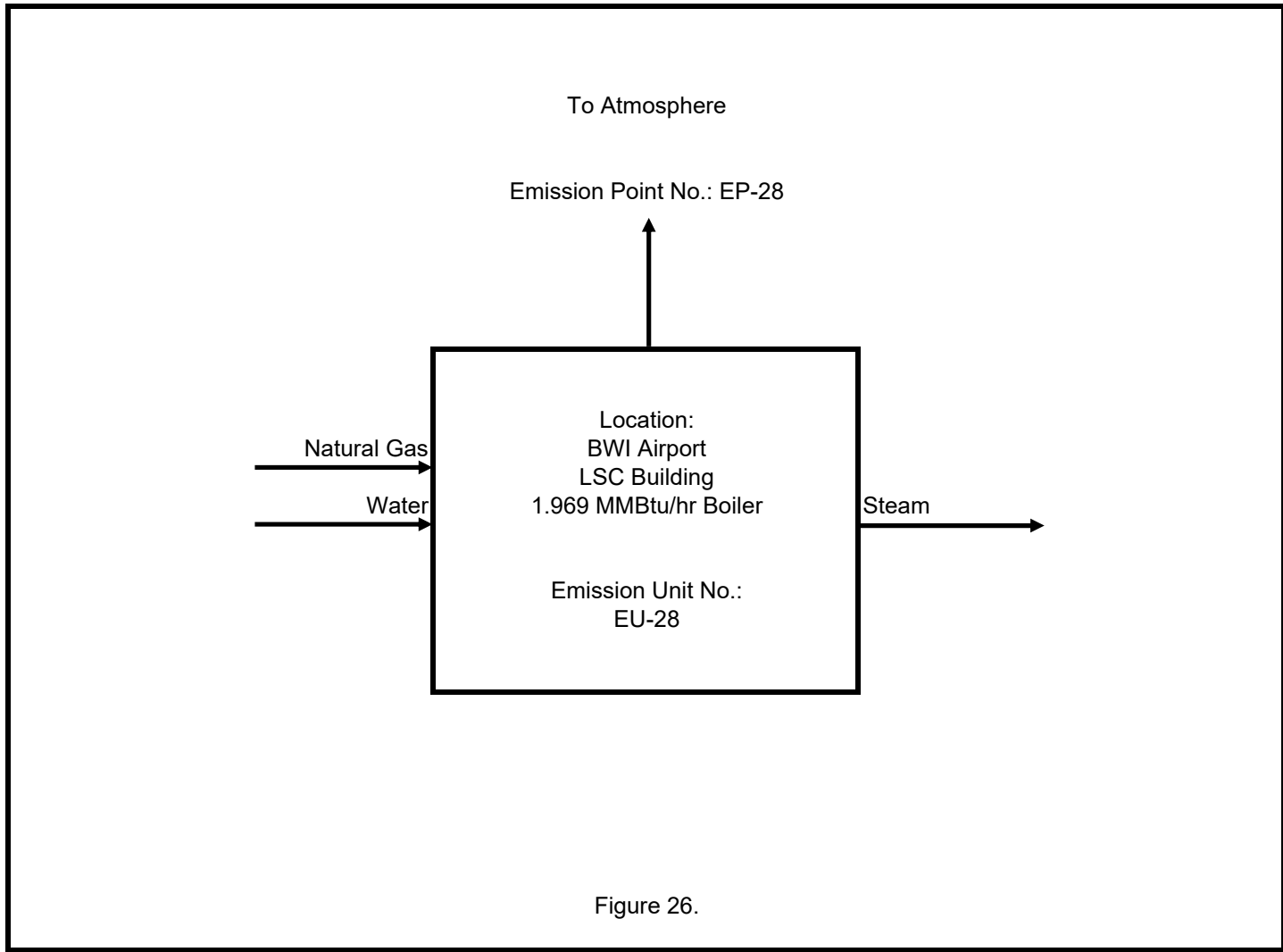


Figure 26.

**Baltimore Washington International (BWI) Thurgood Marshall Airport
Baltimore, Maryland
Process Flow Diagrams**

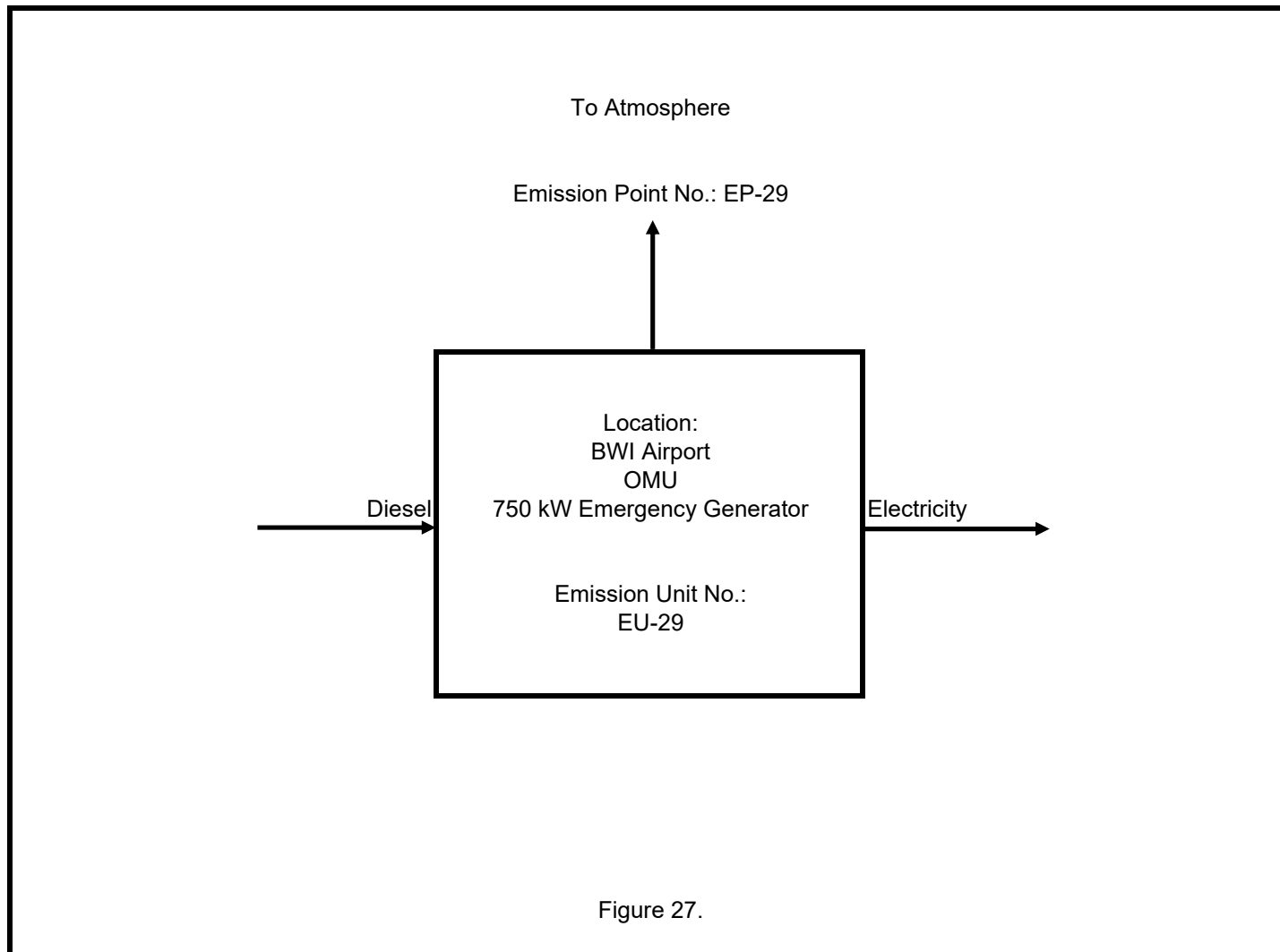


Figure 27.

**Baltimore Washington International (BWI) Thurgood Marshall Airport
Baltimore, Maryland
Process Flow Diagrams**

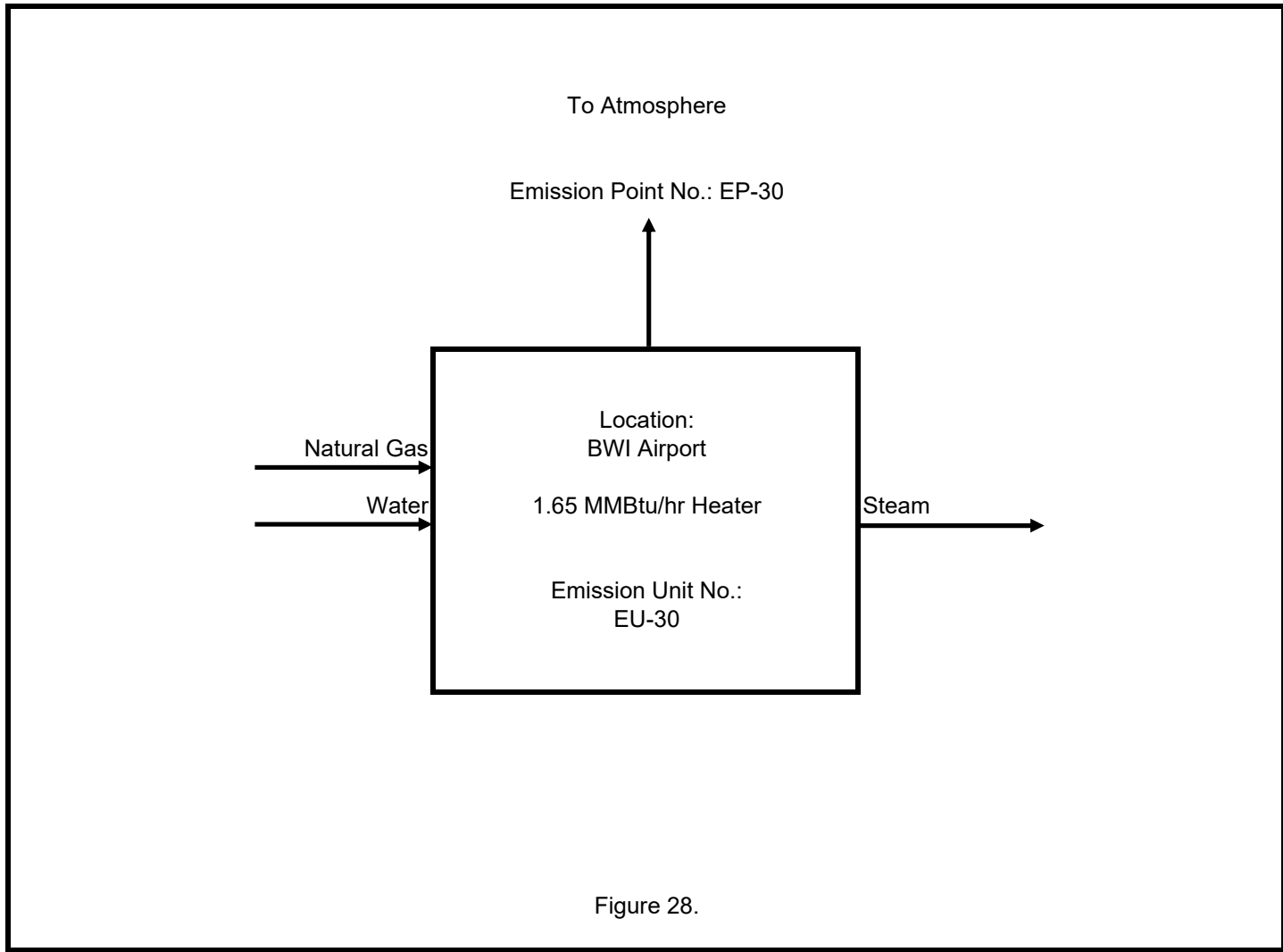


Figure 28.

**Baltimore Washington International (BWI) Thurgood Marshall Airport
Baltimore, Maryland
Process Flow Diagrams**

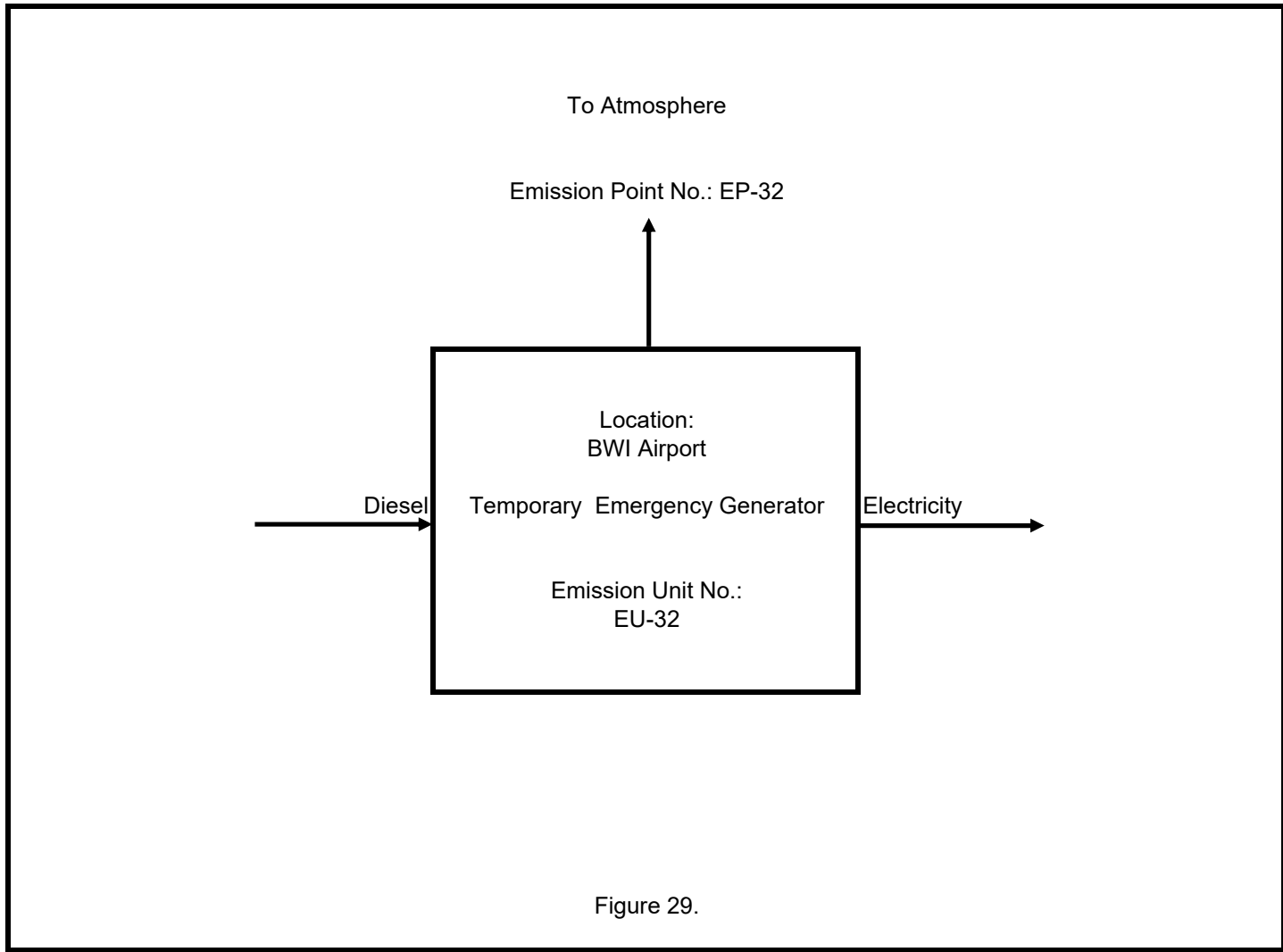


Figure 29.

**Baltimore Washington International (BWI) Thurgood Marshall Airport
Baltimore, Maryland
Process Flow Diagrams**

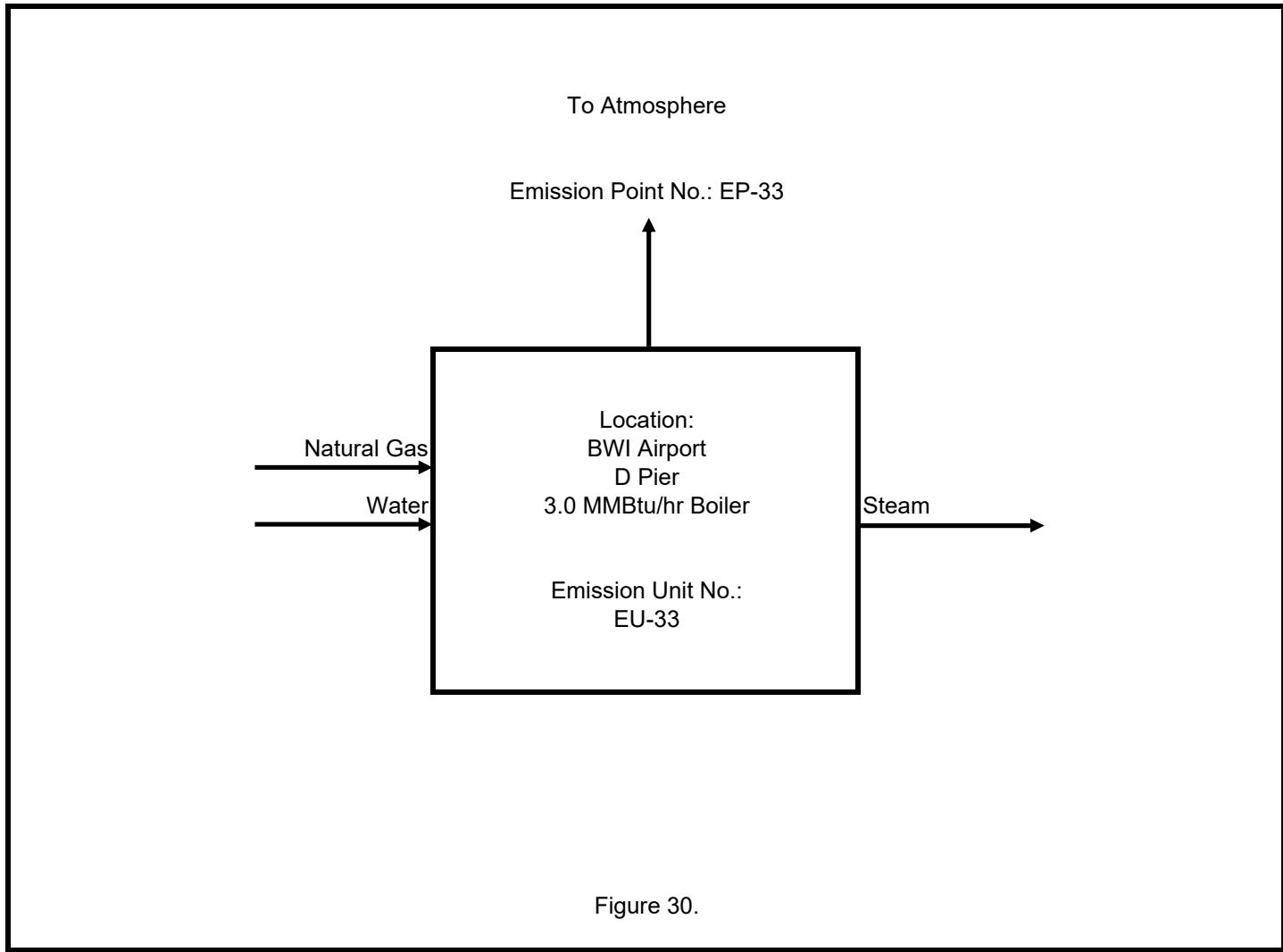


Figure 30.

**Baltimore Washington International (BWI) Thurgood Marshall Airport
Baltimore, Maryland
Process Flow Diagrams**

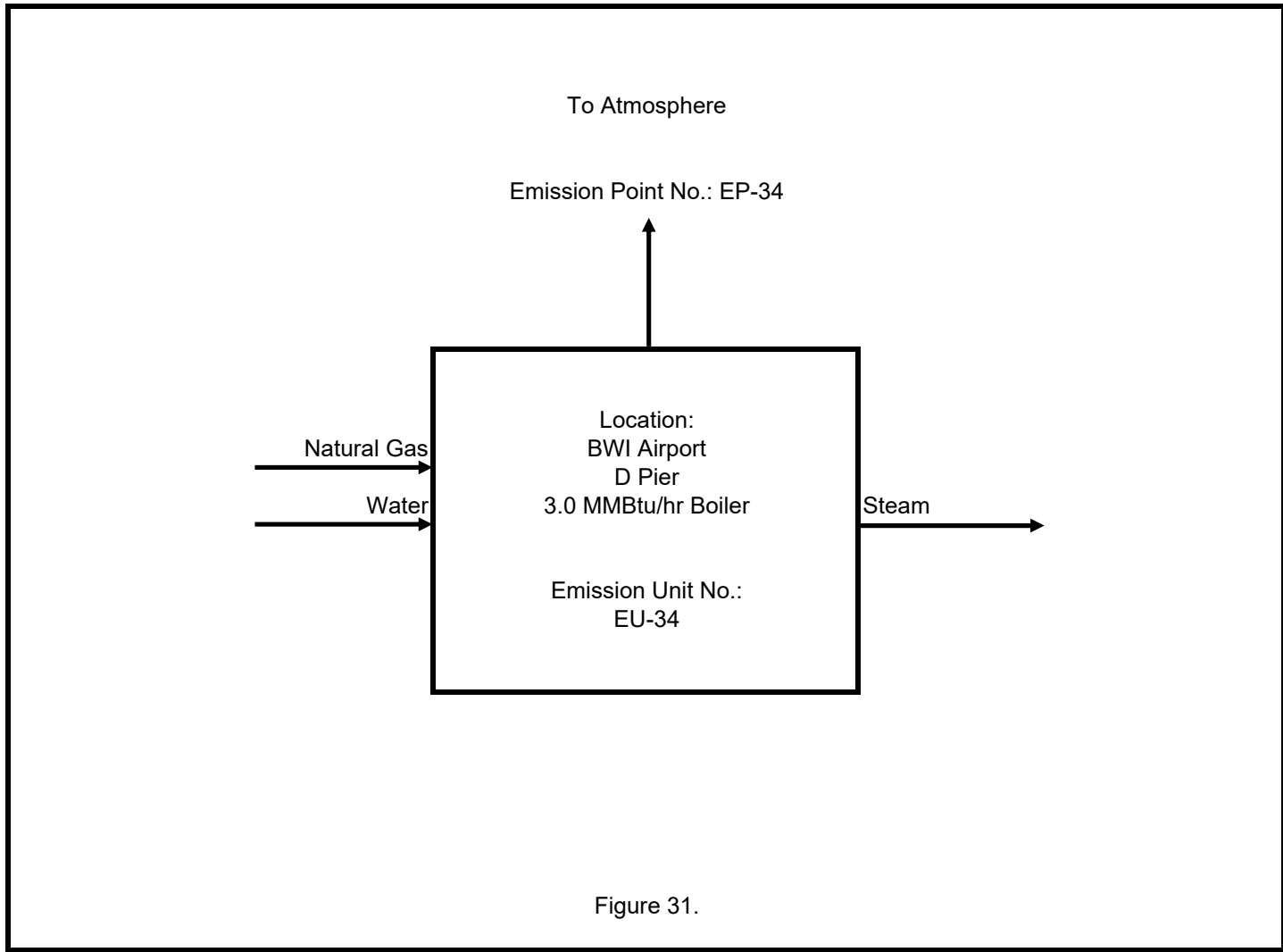


Figure 31.

Appendix B
Site Plan

BWI Emission Sources

November 2022



Appendix C
Emissions Certification Report

March 23, 2022

Maryland Department of the Environment
Air and Radiation Management Administration
1800 Washington Boulevard, Suite 715
Baltimore, Maryland 21230-1720
Attention: Daniel Davis, Compliance Program

**Subject: Title V Permit Number 24-003-0208
Annual Emission Certification Report
Reporting Period 1/1/2021 through 12/31/2021**

Dear Daniel Davis,

The Maryland Department of Transportation Maryland Aviation Administration (MDOT MAA) hereby submits the Annual Emission Certification Report for the Baltimore Washington International Thurgood Marshall (BWI-Marshall) Airport as required by the facility's Title V permit. BWI-Marshall operates under Title V (Part 70) Permit 24-003-0208 issued on February 1, 2019. Emissions from all units which operated at BWI-Marshall during calendar year 2021 are included in this report.

Also included at the end of this submittal is the NSPS 40 CFR 60 Subpart IIII reporting requirement for emergency generators EU-15, EU-16, EU-17, EU-18, EU-29, and EU-32. In addition, a table of the annual capacity factors for the emergency generators is included within this submittal.

If you have any questions or comments regarding this report, please contact me at 410-859-7448 or via email at mwilliams1@bwiairport.com. Alternatively, Jennifer Ehrhardt, Project Manager, AECOM may be contacted at 609-720-2094 or via email at jennifer.ehrhardt@aecom.com.

Sincerely,



Mark Williams, Manager
Environmental Compliance Section
Office of Environmental Services

Enclosures

Annual Emission Certification Report

**EQUIPMENT INVENTORY
EMISSIONS CERTIFICATION REPORT**

24-003-0208**Baltimore Washington International Thurgood Marshall Airport****Equipment Inventory**

Facility ID

Facility Name

Equipment Name	Registration No.	S / F	Fuel			Throughput		Actual Operating Schedule			Estimation Methods
			Type	Amount	Units	Amount	Units	hrs/day	days/wk	days/yr	
EU-1	003-0208-5-0681	S	NG	45.94	MMcf			24	1	36	NA
EU-1	003-0208-5-0681	S	No. 2	0.96	Mgal			2	0	1	NA
EU-2	003-0208-5-0682	S	NG	45.94	MMcf			24	1	36	NA
EU-2	003-0208-5-0682	S	No. 2	0.96	Mgal			2	0	1	NA
EU-3	003-0208-5-0683	S	NG	20.88	MMcf			24	1	36	NA
EU-3	003-0208-5-0683	S	No. 2	0.44	Mgal			2	0	1	NA
EU-4	003-0208-9-0916	S	Diesel	1.80	Mgal			1	1	64	NA
EU-5	003-0208-9-0910	S	Diesel	2.37	Mgal			1	1	64	NA
EU-6	003-0208-9-0914	S	Diesel	2.71	Mgal			1	1	64	NA
EU-7	003-0208-9-0894	S	Gasoline			142.37	Mgal	24	7	365	NA
EU-8	003-0208-4-0887	S	Jet-A	28.84	Mgal			0	0	6	NA
EU-10	003-0208-9-0912	S	Diesel	2.49	Mgal			1	1	64	NA
EU-11	003-0208-9-0913	S	Diesel	1.25	Mgal			1	1	64	NA
EU-12	003-0208-9-0909	S	Diesel	5.33	Mgal			2	1	72	NA
EU-13	003-0208-9-0911	S	Diesel	1.61	Mgal			1	1	64	NA
EU-14	003-0208-9-0915	S	Diesel	0.78	Mgal			0	1	64	NA

**EQUIPMENT INVENTORY
EMISSIONS CERTIFICATION REPORT**

24-003-0208**Baltimore Washington International Thurgood Marshall Airport****Equipment Inventory**

Facility ID

Facility Name

Equipment Name	Registration No.	S / F	Fuel			Throughput		Actual Operating Schedule			Estimation Methods
			Type	Amount	Units	Amount	Units	hrs/day	days/wk	days/yr	
EU-15	003-0208-9-0948	S	Diesel	2.32	Mgal			1	1	64	NA
EU-16	003-0208-9-1030	S	Diesel	6.71	Mgal			1	1	64	NA
EU-17	003-0208-9-1053	S	Diesel	0.86	Mgal			1	0	6	NA
EU-18	003-0208-9-1070	S	Diesel	2.42	Mgal			1	1	64	NA
EU-19	003-0208-5-0769	S	NG	0.00	MMcf			0	0	1	NA
EU-20	003-0208-5-0770	S	NG	0.00	MMcf			0	0	1	NA
EU-23	003-0208-5-0771	S	NG	6.59	MMcf			24	2	94	NA
EU-24	003-0208-5-0772	S	NG	6.59	MMcf			24	2	94	NA
EU-25	003-0208-5-0773	S	NG	6.59	MMcf			24	2	94	NA
EU-26	003-0208-5-0774	S	NG	6.59	MMcf			24	2	94	NA
EU-27	003-0208-5-0794	S	NG	1.10	MMcf			24	1	47	NA
EU-28	003-0208-5-0808	S	NG	2.49	MMcf			24	1	54	NA
EU-29	003-0208-9-1109	S	Diesel	0.43	Mgal			1	0	6	NA
EU-30	003-0208-5-0831	S	NG	1.82	MMcf			24	1	47	NA
EU-31	003-0208-4-0886	S	No. 2	9.37	Mgal			24	0	17	NA
EU-32	003-0208-9-1140	S	Diesel	0.00	Mgal			0	0	0	NA

**EQUIPMENT INVENTORY
EMISSIONS CERTIFICATION REPORT**

24-003-0208

Facility ID

Baltimore Washington International Thurgood Marshall Airport

Facility Name

Equipment Inventory

Equipment Name	Registration No.	S / F	Fuel			Throughput		Actual Operating Schedule			Estimation Methods
			Type	Amount	Units	Amount	Units	hrs/day	days/wk	days/yr	
D-Pier Boiler 1	003-0208-5-0880	S	NG	3.51	MMcf			24	1	50	NA
D-Pier Boiler 2	003-0208-5-0881	S	NG	3.51	MMcf			24	1	50	NA
Total Usage: NG			NG	151.56	MMcf						NA
Total Usage: No.2			No. 2	11.74	Mgal						NA
Total Usage: Diesel			Diesel	31.08	Mgal						NA
Total Usage: Gasoline			Gasoline	0.00	Mgal	142.37	Mgal				NA
Total Usage: Jet A			Jet A	28.84	Mgal						NA

MARYLAND DEPARTMENT OF THE ENVIRONMENT
 1800 Washington Boulevard, Suite 715 • Baltimore Maryland 21230-1720
 410-537-3000 • 1-800-633-6101 • <http://www.mde.state.md.us>
 Air and Radiation Management Administration
 Air Quality Compliance Program
 410-537-3220

FORM 1:

GENERAL FACILITY INFORMATION
EMISSIONS CERTIFICATION REPORT

Calendar Year: 2021

A. FACILITY IDENTIFICATION				Do Not Write in This Space	
Facility Name Baltimore Washington International Thurgood Marshall (BWI-Marshall) Airport				Date Received Regional	
Address BWI Airport				Date Received State	
City Linthicum		County Anne Arundel		AIRS Code	
Zip Code 21240				FINDS Code	
B. Briefly describe the major function of the facility				SIC Code	
Large hub airport with stationary sources of air pollution including				Facility Number:	
fossil fuel-fired boilers at the Central Utility Plant, standby electric generators,					
fuel storage, and training fires.					
				TEMPO ID:	
C. SEASONAL PRODUCTION (% if applicable)				Reviewed by: Name _____ Date _____	
<u>Winter</u> (Dec.-Feb.)	<u>Spring</u> (Mar – May)	<u>Summer</u> (Jun – Aug)	<u>Fall</u> (Sept – Nov)		
_____	_____	_____	_____		
_____	_____	_____	_____		
_____	_____	_____	_____		
D. Explain any increases or decreases in emissions from the previous calendar year for each registration at this facility.					
Variation in emissions from previous calendar year is a result of increased or decreased operation, as appropriate. HAPs that did not meet the reporting threshold were not reported. Capacity factors provided in separate table.					
E. CONTROL DEVICE INFORMATION (for NOx and VOC sources only)					
Control Device		Capture Efficiency		Removal Efficiency	

I am familiar with the facility and the installations and sources for which this report is submitted. I have personally examined the information in this report, which consists of 74 pages (including attachments), and certify that the information is correct to the best of my knowledge.

Paul L. Shank, P.E., C.M. Chief Engineer, Division of Planning and Engineering

Name (Print/Type)	Title	Date
Signature		(410) 859-7448
		Telephone

**CRITERIA POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

24-003-0208**Baltimore Washington International Thurgood Marshall Airport****Criteria Pollutants**

Facility ID

Facility Name

Equipment Name	Registration No.	S / F	Fuel Type	VOC		(TOSD)	NOx		(TOSD)	SOx		CO		Lead		Estimation Methods
				tons/yr	lbs/day	lbs/day	tons/yr	lbs/day	lbs/day	tons/yr	lbs/day	tons/yr	lbs/day	tons/yr	lbs/day	
EU-1	003-0208-5-0681	S	NG	1.26E-01	7.02E+00	7.02E+00	5.63E+00	3.13E+02	3.13E+02	1.38E-02	7.66E-01	1.93E+00	1.07E+02	1.15E-05	6.38E-04	C1, C3
EU-1	003-0208-5-0681	S	No. 2	1.64E-04	3.27E-01	3.27E-01	1.07E-02	2.13E+01	2.13E+01	1.02E-04	2.05E-01	2.40E-03	4.81E+00	6.06E-07	1.21E-03	C1, C3
EU-2	003-0208-5-0682	S	NG	1.26E-01	7.02E+00	7.02E+00	4.77E+00	2.65E+02	2.65E+02	1.38E-02	7.66E-01	1.93E+00	1.07E+02	1.15E-05	6.38E-04	C1, C3
EU-2	003-0208-5-0682	S	No. 2	1.64E-04	3.27E-01	3.27E-01	1.07E-02	2.14E+01	2.14E+01	1.02E-04	2.05E-01	2.40E-03	4.81E+00	6.06E-07	1.21E-03	C1, C3
EU-3	003-0208-5-0683	S	NG	5.74E-02	3.19E+00	3.19E+00	1.86E+00	1.03E+02	1.03E+02	6.26E-03	3.48E-01	8.77E-01	4.87E+01	5.22E-06	2.90E-04	C1, C3
EU-3	003-0208-5-0683	S	No. 2	7.43E-05	1.49E-01	1.49E-01	7.34E-03	1.47E+01	1.47E+01	4.66E-05	9.31E-02	1.09E-03	2.19E+00	2.75E-07	5.51E-04	C1, C3
EU-4	003-0208-9-0916	S	Diesel	1.03E-02	3.22E-01	3.22E-01	4.02E-01	1.26E+01	1.26E+01	1.90E-04	5.95E-03	1.07E-01	3.34E+00	-	-	C3
EU-5	003-0208-9-0910	S	Diesel	1.36E-02	4.24E-01	4.24E-01	5.30E-01	1.66E+01	1.66E+01	2.51E-04	7.84E-03	1.41E-01	4.40E+00	-	-	C3
EU-6	003-0208-9-0914	S	Diesel	1.55E-02	4.85E-01	4.85E-01	6.07E-01	1.90E+01	1.90E+01	2.87E-04	8.98E-03	1.61E-01	5.04E+00	-	-	C3
EU-7	003-0208-9-0894	S	Gasoline	6.79E-01	3.72E+00	3.72E+00	-	-	-	-	-	-	-	-	-	C3
EU-8	003-0208-4-0887	S	Jet-A	8.43E+00	2.81E+03	2.81E+03	1.44E-01	4.81E+01	4.81E+01	9.80E-02	3.27E+01	4.27E+00	1.42E+03	-	-	C1
EU-10	003-0208-9-0912	S	Diesel	1.43E-02	4.47E-01	4.47E-01	5.59E-01	1.75E+01	1.75E+01	2.65E-04	8.27E-03	1.48E-01	4.64E+00	-	-	C3
EU-11	003-0208-9-0913	S	Diesel	2.87E-02	8.97E-01	8.97E-01	3.87E-01	1.21E+01	1.21E+01	1.33E-04	4.15E-03	8.33E-02	2.60E+00	-	-	C3
EU-12	003-0208-9-0909	S	Diesel	3.06E-02	8.49E-01	8.49E-01	1.19E+00	3.32E+01	3.32E+01	5.66E-04	1.57E-02	3.17E-01	8.81E+00	-	-	C3
EU-13	003-0208-9-0911	S	Diesel	9.22E-03	2.88E-01	2.88E-01	3.60E-01	1.13E+01	1.13E+01	1.71E-04	5.33E-03	9.57E-02	2.99E+00	-	-	C3
EU-14	003-0208-9-0915	S	Diesel	4.46E-03	1.39E-01	1.39E-01	1.74E-01	5.44E+00	5.44E+00	8.25E-05	2.58E-03	4.63E-02	1.45E+00	-	-	C3
EU-15	003-0208-9-0948	S	Diesel	1.33E-02	4.16E-01	4.16E-01	5.20E-01	1.63E+01	1.63E+01	2.46E-04	7.70E-03	1.38E-01	4.32E+00	-	-	C3

**CRITERIA POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

24-003-0208**Baltimore Washington International Thurgood Marshall Airport****Criteria Pollutants**

Facility ID

Facility Name

Equipment Name	Registration No.	S / F	Fuel Type	VOC		(TOSD)	NOx		(TOSD)	SOx		CO		Lead		Estimation Methods
				tons/yr	lbs/day	lbs/day	tons/yr	lbs/day	lbs/day	tons/yr	lbs/day	tons/yr	lbs/day	tons/yr	lbs/day	
EU-16	003-0208-9-1030	S	Diesel	3.85E-02	1.20E+00	1.20E+00	1.50E+00	4.70E+01	4.70E+01	7.11E-04	2.22E-02	3.99E-01	1.25E+01	-	-	C3
EU-17	003-0208-9-1053	S	Diesel	4.93E-03	1.64E+00	1.64E+00	1.93E-01	6.42E+01	6.42E+01	9.12E-05	3.04E-02	5.12E-02	1.71E+01	-	-	C3
EU-18	003-0208-9-1070	S	Diesel	1.39E-02	4.34E-01	4.34E-01	5.42E-01	1.69E+01	1.69E+01	2.57E-04	8.02E-03	1.44E-01	4.50E+00	-	-	C3
EU-19	003-0208-5-0769	S	NG	2.16E-06	4.31E-03	4.31E-03	1.96E-05	3.92E-02	3.92E-02	2.35E-07	4.71E-04	3.29E-05	6.59E-02	1.96E-10	3.92E-07	C3
EU-20	003-0208-5-0770	S	NG	2.16E-06	4.31E-03	4.31E-03	1.96E-05	3.92E-02	3.92E-02	2.35E-07	4.71E-04	3.29E-05	6.59E-02	1.96E-10	3.92E-07	C3
EU-23	003-0208-5-0771	S	NG	1.81E-02	3.86E-01	3.86E-01	1.65E-01	3.51E+00	3.51E+00	1.98E-03	4.21E-02	2.77E-01	5.89E+00	1.65E-06	3.51E-05	C3
EU-24	003-0208-5-0772	S	NG	1.81E-02	3.86E-01	3.86E-01	1.65E-01	3.51E+00	3.51E+00	1.98E-03	4.21E-02	2.77E-01	5.89E+00	1.65E-06	3.51E-05	C3
EU-25	003-0208-5-0773	S	NG	1.81E-02	3.86E-01	3.86E-01	1.65E-01	3.51E+00	3.51E+00	1.98E-03	4.21E-02	2.77E-01	5.89E+00	1.65E-06	3.51E-05	C3
EU-26	003-0208-5-0774	S	NG	1.81E-02	3.86E-01	3.86E-01	1.65E-01	3.51E+00	3.51E+00	1.98E-03	4.21E-02	2.77E-01	5.89E+00	1.65E-06	3.51E-05	C3
EU-27	003-0208-5-0794	S	NG	3.03E-03	1.29E-01	1.29E-01	2.75E-02	1.17E+00	1.17E+00	3.31E-04	1.41E-02	4.63E-02	1.97E+00	2.75E-07	1.17E-05	C3
EU-28	003-0208-5-0808	S	NG	6.85E-03	2.54E-01	2.54E-01	6.23E-02	2.31E+00	2.31E+00	7.48E-04	2.77E-02	1.05E-01	3.88E+00	6.23E-07	2.31E-05	C3
EU-29	003-0208-9-1109	S	Diesel	2.47E-03	8.24E-01	8.24E-01	9.66E-02	3.22E+01	3.22E+01	4.57E-05	1.52E-02	2.57E-02	8.55E+00	-	-	C3
EU-30	003-0208-5-0831	S	NG	5.00E-03	2.13E-01	2.13E-01	4.55E-02	1.93E+00	1.93E+00	5.45E-04	2.32E-02	7.64E-02	3.25E+00	4.55E-07	1.93E-05	C3
EU-31	003-0208-4-0886	S	No. 2	1.59E-03	1.87E-01	1.87E-01	9.37E-02	1.10E+01	1.10E+01	9.98E-04	1.17E-01	2.34E-02	2.76E+00	5.91E-06	6.95E-04	C3
EU-32	003-0208-9-1140	S	Diesel	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-	-	C3
D-Pier Boiler 1	003-0208-5-0880	S	NG	9.65E-03	3.86E-01	3.86E-01	1.76E-01	7.02E+00	7.02E+00	1.05E-03	4.21E-02	1.47E-01	5.90E+00	8.78E-07	3.51E-05	C3
D-Pier Boiler 2	003-0208-5-0881	S	NG	9.65E-03	3.86E-01	3.86E-01	1.76E-01	7.02E+00	7.02E+00	1.05E-03	4.21E-02	1.47E-01	5.90E+00	8.78E-07	3.51E-05	C3
Total Emissions				9.72E+00	2.84E+03	2.84E+03	2.07E+01	1.14E+03	1.14E+03	1.48E-01	3.56E+01	1.25E+01	1.83E+03	4.53E-05	5.50E-03	

**PARTICULATE MATTER
EMISSIONS CERTIFICATION REPORT**

24-003-0208**Baltimore Washington International Thurgood Marshall Airport****Particulate Matter (PM)**

Facility ID

Facility Name

Pollutant

Equipment Name	Registration No.	S / F	Fuel Type	PM - Filterable		PM 10 - Filterable		PM 2.5 - Filterable		PM - Condensable		Estimation Methods
				tons/yr	lbs/day	tons/yr	lbs/day	tons/yr	lbs/day	tons/yr	lbs/day	
EU-1	003-0208-5-0681	S	NG	4.36E-02	2.42E+00	4.36E-02	2.42E+00	4.36E-02	2.42E+00	1.31E-01	7.27E+00	C3
EU-1	003-0208-5-0681	S	No. 2	9.62E-04	1.92E+00	4.81E-04	9.62E-01	1.20E-04	2.40E-01	6.25E-04	1.25E+00	C3
EU-2	003-0208-5-0682	S	NG	4.36E-02	2.42E+00	4.36E-02	2.42E+00	4.36E-02	2.42E+00	1.31E-01	7.27E+00	C3
EU-2	003-0208-5-0682	S	No. 2	9.62E-04	1.92E+00	4.81E-04	9.62E-01	1.20E-04	2.40E-01	6.25E-04	1.25E+00	C3
EU-3	003-0208-5-0683	S	NG	1.98E-02	1.10E+00	1.98E-02	1.10E+00	1.98E-02	1.10E+00	5.95E-02	3.31E+00	C3
EU-3	003-0208-5-0683	S	No. 2	4.37E-04	8.74E-01	2.19E-04	4.37E-01	5.47E-05	1.09E-01	2.84E-04	5.68E-01	C3
EU-4	003-0208-9-0916	S	Diesel	7.79E-03	2.44E-01	7.20E-03	2.25E-01	6.02E-03	1.88E-01	9.68E-04	3.02E-02	C3
EU-5	003-0208-9-0910	S	Diesel	1.03E-02	3.21E-01	9.49E-03	2.97E-01	7.93E-03	2.48E-01	1.28E-03	3.98E-02	C3
EU-6	003-0208-9-0914	S	Diesel	1.18E-02	3.67E-01	1.09E-02	3.40E-01	9.09E-03	2.84E-01	1.46E-03	4.56E-02	C3
EU-7	003-0208-9-0894	S	Gasoline	-	-	-	-	-	-	-	-	NA
EU-8	003-0208-4-0887	S	Jet-A	2.80E+00	9.32E+02	2.80E+00	9.32E+02	2.80E+00	9.32E+02	-	-	C1
EU-10	003-0208-9-0912	S	Diesel	1.08E-02	3.38E-01	1.00E-02	3.13E-01	8.36E-03	2.61E-01	1.34E-03	4.20E-02	C3
EU-11	003-0208-9-0913	S	Diesel	5.43E-03	1.70E-01	2.72E-02	8.49E-01	4.20E-03	1.31E-01	6.75E-04	2.11E-02	C3
EU-12	003-0208-9-0909	S	Diesel	2.31E-02	6.43E-01	2.14E-02	5.94E-01	1.79E-02	4.97E-01	2.87E-03	7.99E-02	C3
EU-13	003-0208-9-0911	S	Diesel	6.98E-03	2.18E-01	6.45E-03	2.02E-01	5.39E-03	1.69E-01	8.67E-04	2.71E-02	C3
EU-14	003-0208-9-0915	S	Diesel	3.38E-03	1.05E-01	3.12E-03	9.75E-02	2.61E-03	8.15E-02	4.19E-04	1.31E-02	C3
EU-15	003-0208-9-0948	S	Diesel	1.01E-02	3.15E-01	9.32E-03	2.91E-01	7.79E-03	2.43E-01	1.25E-03	3.91E-02	C3

**PARTICULATE MATTER
EMISSIONS CERTIFICATION REPORT**

24-003-0208**Baltimore Washington International Thurgood Marshall Airport****Particulate Matter (PM)**

Facility ID

Facility Name

Pollutant

Equipment Name	Registration No.	S / F	Fuel Type	PM - Filterable		PM 10 - Filterable		PM 2.5 - Filterable		PM - Condensable		Estimation Methods
				tons/yr	lbs/day	tons/yr	lbs/day	tons/yr	lbs/day	tons/yr	lbs/day	
EU-16	003-0208-9-1030	S	Diesel	2.91E-02	9.10E-01	2.69E-02	8.41E-01	2.25E-02	7.03E-01	3.62E-03	1.13E-01	C3
EU-17	003-0208-9-1053	S	Diesel	3.73E-03	1.24E+00	3.45E-03	1.15E+00	2.88E-03	9.61E-01	4.64E-04	1.55E-01	C3
EU-18	003-0208-9-1070	S	Diesel	1.05E-02	3.28E-01	9.71E-03	3.03E-01	8.11E-03	2.54E-01	1.30E-03	4.08E-02	C3
EU-19	003-0208-5-0769	S	NG	7.45E-07	1.49E-03	7.45E-07	1.49E-03	7.45E-07	1.49E-03	2.24E-06	4.47E-03	C3
EU-20	003-0208-5-0770	S	NG	7.45E-07	1.49E-03	7.45E-07	1.49E-03	7.45E-07	1.49E-03	2.24E-06	4.47E-03	C3
EU-23	003-0208-5-0771	S	NG	6.26E-03	1.33E-01	6.26E-03	1.33E-01	6.26E-03	1.33E-01	1.88E-02	4.00E-01	C3
EU-24	003-0208-5-0772	S	NG	6.26E-03	1.33E-01	6.26E-03	1.33E-01	6.26E-03	1.33E-01	1.88E-02	4.00E-01	C3
EU-25	003-0208-5-0773	S	NG	6.26E-03	1.33E-01	6.26E-03	1.33E-01	6.26E-03	1.33E-01	1.88E-02	4.00E-01	C3
EU-26	003-0208-5-0774	S	NG	6.26E-03	1.33E-01	6.26E-03	1.33E-01	6.26E-03	1.33E-01	1.88E-02	4.00E-01	C3
EU-27	003-0208-5-0794	S	NG	1.05E-03	4.45E-02	1.05E-03	4.45E-02	1.05E-03	4.45E-02	3.14E-03	1.34E-01	C3
EU-28	003-0208-5-0808	S	NG	2.37E-03	8.77E-02	2.37E-03	8.77E-02	2.37E-03	8.77E-02	7.10E-03	2.63E-01	C3
EU-29	003-0208-9-1109	S	Diesel	1.87E-03	6.24E-01	1.73E-03	5.76E-01	1.45E-03	4.82E-01	2.32E-04	7.75E-02	C3
EU-30	003-0208-5-0831	S	NG	1.73E-03	7.35E-02	1.73E-03	7.35E-02	1.73E-03	7.35E-02	5.18E-03	2.20E-01	C3
EU-31	003-0208-4-0886	S	No. 2	9.37E-03	1.10E+00	4.69E-03	5.51E-01	1.17E-03	1.38E-01	6.09E-03	7.17E-01	C3
EU-32	003-0208-9-1140	S	Diesel	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	C3

**PARTICULATE MATTER
EMISSIONS CERTIFICATION REPORT**

24-003-0208

Baltimore Washington International Thurgood Marshall Airport

Particulate Matter (PM)

Facility ID

Facility Name

Pollutant

Equipment Name	Registration No.	S / F	Fuel Type	PM - Filterable		PM 10 - Filterable		PM 2.5 - Filterable		PM - Condensable		Estimation Methods
				tons/yr	lbs/day	tons/yr	lbs/day	tons/yr	lbs/day	tons/yr	lbs/day	
D-Pier Boiler 1	003-0208-5-0880	S	NG	3.33E-03	1.33E-01	3.33E-03	1.33E-01	3.33E-03	1.33E-01	1.00E-02	4.00E-01	C3
D-Pier Boiler 2	003-0208-5-0881	S	NG	3.33E-03	1.33E-01	3.33E-03	1.33E-01	3.33E-03	1.33E-01	1.00E-02	4.00E-01	C3
Total Emissions				3.09E+00	9.51E+02	3.09E+00	9.48E+02	3.05E+00	9.44E+02	4.56E-01	2.54E+01	

**REPORTABLE TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

24-003-0208Baltimore Washington International Thurgood Marshall AirportReportable Toxics

Facility ID

Facility Name

Pollutant

Equipment Name	Registration No.	S / F	Fuel Type	Pollutant	CASRN	Actual Emissions			Control Device	Efficiency (%)	Estimation Method
						tons/yr	lbs/day	lbs/hr			
EU-1	003-0208-5-0681	S	NG	Acrolein	107-02-8	-	-	-	N/A	N/A	NA
EU-1	003-0208-5-0681	S	NG	Arsenic	7440-38-2	4.59E-06	2.55E-04	1.08E-05	N/A	N/A	C3
EU-1	003-0208-5-0681	S	NG	Benzene	71-43-2	4.82E-05	2.68E-03	1.13E-04	N/A	N/A	C3
EU-1	003-0208-5-0681	S	NG	Beryllium	7440-41-7	2.76E-07	1.53E-05	6.47E-07	N/A	N/A	C3
EU-1	003-0208-5-0681	S	NG	Cadmium	7440-43-9	2.53E-05	1.40E-03	5.93E-05	N/A	N/A	C3
EU-1	003-0208-5-0681	S	NG	Formaldehyde	50-00-0	1.72E-03	9.57E-02	4.04E-03	N/A	N/A	C3
EU-1	003-0208-5-0681	S	NG	Mercury	7439-97-6	5.97E-06	3.32E-04	1.40E-05	N/A	N/A	C3
EU-1	003-0208-5-0681	S	NG	Selenium	7782-49-2	5.51E-07	3.06E-05	1.29E-06	N/A	N/A	C3
EU-1	003-0208-5-0681	S	NG	POM	N/A	2.03E-06	1.13E-04	4.76E-06	N/A	N/A	C3
EU-1	003-0208-5-0681	S	No. 2	Acrolein	107-02-8	-	-	-	N/A	N/A	NA
EU-1	003-0208-5-0681	S	No. 2	Arsenic	7440-38-2	2.69E-07	5.39E-04	2.20E-04	N/A	N/A	C3
EU-1	003-0208-5-0681	S	No. 2	Benzene	71-43-2	1.03E-07	2.06E-04	8.41E-05	N/A	N/A	C3
EU-1	003-0208-5-0681	S	No. 2	Beryllium	7440-41-7	2.02E-07	4.04E-04	1.65E-04	N/A	N/A	C3
EU-1	003-0208-5-0681	S	No. 2	Cadmium	7440-43-9	2.02E-07	4.04E-04	1.65E-04	N/A	N/A	C3
EU-1	003-0208-5-0681	S	No. 2	Formaldehyde	50-00-0	1.59E-05	3.17E-02	1.30E-02	N/A	N/A	C3
EU-1	003-0208-5-0681	S	No. 2	Mercury	7439-97-6	2.02E-07	4.04E-04	1.65E-04	N/A	N/A	C3
EU-1	003-0208-5-0681	S	No. 2	Selenium	7782-49-2	1.01E-06	2.02E-03	8.25E-04	N/A	N/A	C3
EU-1	003-0208-5-0681	S	No. 2	POM	N/A	1.59E-06	3.17E-03	1.30E-03	N/A	N/A	C3

**REPORTABLE TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

24-003-0208Baltimore Washington International Thurgood Marshall AirportReportable Toxics

Facility ID

Facility Name

Pollutant

Equipment Name	Registration No.	S / F	Fuel Type	Pollutant	CASRN	Actual Emissions			Control Device	Efficiency (%)	Estimation Method
						tons/yr	lbs/day	lbs/hr			
EU-2	003-0208-5-0682	S	NG	Acrolein	107-02-8	-	-	-	N/A	N/A	NA
EU-2	003-0208-5-0682	S	NG	Arsenic	7440-38-2	4.59E-06	2.55E-04	1.08E-05	N/A	N/A	C3
EU-2	003-0208-5-0682	S	NG	Benzene	71-43-2	4.82E-05	2.68E-03	1.13E-04	N/A	N/A	C3
EU-2	003-0208-5-0682	S	NG	Beryllium	7440-41-7	2.76E-07	1.53E-05	6.47E-07	N/A	N/A	C3
EU-2	003-0208-5-0682	S	NG	Cadmium	7440-43-9	2.53E-05	1.40E-03	5.93E-05	N/A	N/A	C3
EU-2	003-0208-5-0682	S	NG	Formaldehyde	50-00-0	1.72E-03	9.57E-02	4.04E-03	N/A	N/A	C3
EU-2	003-0208-5-0682	S	NG	Mercury	7439-97-6	5.97E-06	3.32E-04	1.40E-05	N/A	N/A	C3
EU-2	003-0208-5-0682	S	NG	Selenium	7782-49-2	5.51E-07	3.06E-05	1.29E-06	N/A	N/A	C3
EU-2	003-0208-5-0682	S	NG	POM	N/A	2.03E-06	1.13E-04	4.76E-06	N/A	N/A	C3
EU-2	003-0208-5-0682	S	No. 2	Acrolein	107-02-8	-	-	-	N/A	N/A	NA
EU-2	003-0208-5-0682	S	No. 2	Arsenic	7440-38-2	2.69E-07	5.39E-04	2.20E-04	N/A	N/A	C3
EU-2	003-0208-5-0682	S	No. 2	Benzene	71-43-2	1.03E-07	2.06E-04	8.41E-05	N/A	N/A	C3
EU-2	003-0208-5-0682	S	No. 2	Beryllium	7440-41-7	2.02E-07	4.04E-04	1.65E-04	N/A	N/A	C3
EU-2	003-0208-5-0682	S	No. 2	Cadmium	7440-43-9	2.02E-07	4.04E-04	1.65E-04	N/A	N/A	C3
EU-2	003-0208-5-0682	S	No. 2	Formaldehyde	50-00-0	1.59E-05	3.17E-02	1.30E-02	N/A	N/A	C3
EU-2	003-0208-5-0682	S	No. 2	Mercury	7439-97-6	2.02E-07	4.04E-04	1.65E-04	N/A	N/A	C3
EU-2	003-0208-5-0682	S	No. 2	Selenium	7782-49-2	1.01E-06	2.02E-03	8.25E-04	N/A	N/A	C3
EU-2	003-0208-5-0682	S	No. 2	POM	N/A	1.59E-06	3.17E-03	1.30E-03	N/A	N/A	C3

**REPORTABLE TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

24-003-0208Baltimore Washington International Thurgood Marshall AirportReportable Toxics

Facility ID

Facility Name

Pollutant

Equipment Name	Registration No.	S / F	Fuel Type	Pollutant	CASRN	Actual Emissions			Control Device	Efficiency (%)	Estimation Method
						tons/yr	lbs/day	lbs/hr			
EU-3	003-0208-5-0683	S	NG	Acrolein	107-02-8	-	-	-	N/A	N/A	NA
EU-3	003-0208-5-0683	S	NG	Arsenic	7440-38-2	2.09E-06	1.16E-04	4.90E-06	N/A	N/A	C3
EU-3	003-0208-5-0683	S	NG	Benzene	71-43-2	2.19E-05	1.22E-03	5.15E-05	N/A	N/A	C3
EU-3	003-0208-5-0683	S	NG	Beryllium	7440-41-7	1.25E-07	6.96E-06	2.94E-07	N/A	N/A	C3
EU-3	003-0208-5-0683	S	NG	Cadmium	7440-43-9	1.15E-05	6.38E-04	2.70E-05	N/A	N/A	C3
EU-3	003-0208-5-0683	S	NG	Formaldehyde	50-00-0	7.83E-04	4.35E-02	1.84E-03	N/A	N/A	C3
EU-3	003-0208-5-0683	S	NG	Mercury	7439-97-6	2.71E-06	1.51E-04	6.37E-06	N/A	N/A	C3
EU-3	003-0208-5-0683	S	NG	Selenium	7782-49-2	2.51E-07	1.39E-05	5.88E-07	N/A	N/A	C3
EU-3	003-0208-5-0683	S	NG	POM	N/A	9.21E-07	5.12E-05	2.16E-06	N/A	N/A	C3
EU-3	003-0208-5-0683	S	No. 2	Acrolein	107-02-8	-	-	-	N/A	N/A	NA
EU-3	003-0208-5-0683	S	No. 2	Arsenic	7440-38-2	1.22E-07	2.45E-04	1.00E-04	N/A	N/A	C3
EU-3	003-0208-5-0683	S	No. 2	Benzene	71-43-2	4.68E-08	9.36E-05	3.82E-05	N/A	N/A	C3
EU-3	003-0208-5-0683	S	No. 2	Beryllium	7440-41-7	9.18E-08	1.84E-04	7.50E-05	N/A	N/A	C3
EU-3	003-0208-5-0683	S	No. 2	Cadmium	7440-43-9	9.18E-08	1.84E-04	7.50E-05	N/A	N/A	C3
EU-3	003-0208-5-0683	S	No. 2	Formaldehyde	50-00-0	7.21E-06	1.44E-02	5.89E-03	N/A	N/A	C3
EU-3	003-0208-5-0683	S	No. 2	Mercury	7439-97-6	9.18E-08	1.84E-04	7.50E-05	N/A	N/A	C3
EU-3	003-0208-5-0683	S	No. 2	Selenium	7782-49-2	4.59E-07	9.18E-04	3.75E-04	N/A	N/A	C3
EU-3	003-0208-5-0683	S	No. 2	POM	N/A	7.21E-07	1.44E-03	5.89E-04	N/A	N/A	C3

**REPORTABLE TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

24-003-0208**Baltimore Washington International Thurgood Marshall Airport****Reportable Toxics**

Facility ID

Facility Name

Pollutant

Equipment Name	Registration No.	S / F	Fuel Type	Pollutant	CASRN	Actual Emissions			Control Device	Efficiency (%)	Estimation Method
						tons/yr	lbs/day	lbs/hr			
EU-4	003-0208-9-0916	S	Diesel	Acrolein	107-02-8	9.90E-07	3.10E-05	3.99E-05	N/A	N/A	C3
EU-4	003-0208-9-0916	S	Diesel	Arsenic	7440-38-2	-	-	-	N/A	N/A	NA
EU-4	003-0208-9-0916	S	Diesel	Benzene	71-43-2	9.75E-05	3.05E-03	3.93E-03	N/A	N/A	C3
EU-4	003-0208-9-0916	S	Diesel	Beryllium	7440-41-7	-	-	-	N/A	N/A	NA
EU-4	003-0208-9-0916	S	Diesel	Cadmium	7440-43-9	-	-	-	N/A	N/A	NA
EU-4	003-0208-9-0916	S	Diesel	Formaldehyde	50-00-0	9.92E-06	3.10E-04	4.00E-04	N/A	N/A	C3
EU-4	003-0208-9-0916	S	Diesel	Mercury	7439-97-6	-	-	-	N/A	N/A	NA
EU-4	003-0208-9-0916	S	Diesel	Selenium	7782-49-2	-	-	-	N/A	N/A	NA
EU-4	003-0208-9-0916	S	Diesel	POM	N/A	2.66E-05	8.33E-04	1.07E-03	N/A	N/A	C3
EU-5	003-0208-9-0910	S	Diesel	Acrolein	107-02-8	1.30E-06	4.08E-05	5.93E-05	N/A	N/A	C3
EU-5	003-0208-9-0910	S	Diesel	Arsenic	7440-38-2	-	-	-	N/A	N/A	NA
EU-5	003-0208-9-0910	S	Diesel	Benzene	71-43-2	1.28E-04	4.02E-03	5.84E-03	N/A	N/A	C3
EU-5	003-0208-9-0910	S	Diesel	Beryllium	7440-41-7	-	-	-	N/A	N/A	NA
EU-5	003-0208-9-0910	S	Diesel	Cadmium	7440-43-9	-	-	-	N/A	N/A	NA
EU-5	003-0208-9-0910	S	Diesel	Formaldehyde	50-00-0	1.31E-05	4.08E-04	5.94E-04	N/A	N/A	C3
EU-5	003-0208-9-0910	S	Diesel	Mercury	7439-97-6	-	-	-	N/A	N/A	NA
EU-5	003-0208-9-0910	S	Diesel	Selenium	7782-49-2	-	-	-	N/A	N/A	NA
EU-5	003-0208-9-0910	S	Diesel	POM	N/A	3.51E-05	1.10E-03	1.60E-03	N/A	N/A	C3

**REPORTABLE TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

24-003-0208**Baltimore Washington International Thurgood Marshall Airport****Reportable Toxics**

Facility ID

Facility Name

Pollutant

Equipment Name	Registration No.	S / F	Fuel Type	Pollutant	CASRN	Actual Emissions			Control Device	Efficiency (%)	Estimation Method
						tons/yr	lbs/day	lbs/hr			
EU-6	003-0208-9-0914	S	Diesel	Acrolein	107-02-8	1.49E-06	4.67E-05	7.12E-05	N/A	N/A	C3
EU-6	003-0208-9-0914	S	Diesel	Arsenic	7440-38-2	-	-	-	N/A	N/A	NA
EU-6	003-0208-9-0914	S	Diesel	Benzene	71-43-2	1.47E-04	4.60E-03	7.01E-03	N/A	N/A	C3
EU-6	003-0208-9-0914	S	Diesel	Beryllium	7440-41-7	-	-	-	N/A	N/A	NA
EU-6	003-0208-9-0914	S	Diesel	Cadmium	7440-43-9	-	-	-	N/A	N/A	NA
EU-6	003-0208-9-0914	S	Diesel	Formaldehyde	50-00-0	1.50E-05	4.68E-04	7.13E-04	N/A	N/A	C3
EU-6	003-0208-9-0914	S	Diesel	Mercury	7439-97-6	-	-	-	N/A	N/A	NA
EU-6	003-0208-9-0914	S	Diesel	Selenium	7782-49-2	-	-	-	N/A	N/A	NA
EU-6	003-0208-9-0914	S	Diesel	POM	N/A	4.02E-05	1.26E-03	1.91E-03	N/A	N/A	C3
EU-7	003-0208-9-0894	S	Gasoline	Acrolein	107-02-8	-	-	-	N/A	N/A	NA
EU-7	003-0208-9-0894	S	Gasoline	Arsenic	7440-38-2	-	-	-	N/A	N/A	NA
EU-7	003-0208-9-0894	S	Gasoline	Benzene	71-43-2	-	-	-	N/A	N/A	NA
EU-7	003-0208-9-0894	S	Gasoline	Beryllium	7440-41-7	-	-	-	N/A	N/A	NA
EU-7	003-0208-9-0894	S	Gasoline	Cadmium	7440-43-9	-	-	-	N/A	N/A	NA
EU-7	003-0208-9-0894	S	Gasoline	Formaldehyde	50-00-0	-	-	-	N/A	N/A	NA
EU-7	003-0208-9-0894	S	Gasoline	Mercury	7439-97-6	-	-	-	N/A	N/A	NA
EU-7	003-0208-9-0894	S	Gasoline	Selenium	7782-49-2	-	-	-	N/A	N/A	NA
EU-7	003-0208-9-0894	S	Gasoline	POM	N/A	-	-	-	N/A	N/A	NA

**REPORTABLE TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

24-003-0208Baltimore Washington International Thurgood Marshall AirportReportable Toxics

Facility ID

Facility Name

Pollutant

Equipment Name	Registration No.	S / F	Fuel Type	Pollutant	CASRN	Actual Emissions			Control Device	Efficiency (%)	Estimation Method
						tons/yr	lbs/day	lbs/hr			
EU-8	003-0208-4-0887	F	Jet-A	Acrolein	107-02-8	-	-	-	N/A	N/A	NA
EU-8	003-0208-4-0887	F	Jet-A	Arsenic	7440-38-2	-	-	-	N/A	N/A	NA
EU-8	003-0208-4-0887	F	Jet-A	Benzene	71-43-2	-	-	-	N/A	N/A	NA
EU-8	003-0208-4-0887	F	Jet-A	Beryllium	7440-41-7	-	-	-	N/A	N/A	NA
EU-8	003-0208-4-0887	F	Jet-A	Cadmium	7440-43-9	-	-	-	N/A	N/A	NA
EU-8	003-0208-4-0887	F	Jet-A	Formaldehyde	50-00-0	-	-	-	N/A	N/A	NA
EU-8	003-0208-4-0887	F	Jet-A	Mercury	7439-97-6	-	-	-	N/A	N/A	NA
EU-8	003-0208-4-0887	F	Jet-A	Selenium	7782-49-2	-	-	-	N/A	N/A	NA
EU-8	003-0208-4-0887	F	Jet-A	POM	N/A	-	-	-	N/A	N/A	NA
EU-10	003-0208-9-0912	S	Diesel	Acrolein	107-02-8	1.38E-06	4.30E-05	4.74E-05	N/A	N/A	C3
EU-10	003-0208-9-0912	S	Diesel	Arsenic	7440-38-2	-	-	-	N/A	N/A	NA
EU-10	003-0208-9-0912	S	Diesel	Benzene	71-43-2	1.36E-04	4.23E-03	4.67E-03	N/A	N/A	C3
EU-10	003-0208-9-0912	S	Diesel	Beryllium	7440-41-7	-	-	-	N/A	N/A	NA
EU-10	003-0208-9-0912	S	Diesel	Cadmium	7440-43-9	-	-	-	N/A	N/A	NA
EU-10	003-0208-9-0912	S	Diesel	Formaldehyde	50-00-0	1.38E-05	4.31E-04	4.75E-04	N/A	N/A	C3
EU-10	003-0208-9-0912	S	Diesel	Mercury	7439-97-6	-	-	-	N/A	N/A	NA
EU-10	003-0208-9-0912	S	Diesel	Selenium	7782-49-2	-	-	-	N/A	N/A	NA
EU-10	003-0208-9-0912	S	Diesel	POM	N/A	3.70E-05	1.16E-03	1.28E-03	N/A	N/A	C3

**REPORTABLE TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

24-003-0208Baltimore Washington International Thurgood Marshall AirportReportable Toxics

Facility ID

Facility Name

Pollutant

Equipment Name	Registration No.	S / F	Fuel Type	Pollutant	CASRN	Actual Emissions			Control Device	Efficiency (%)	Estimation Method
						tons/yr	lbs/day	lbs/hr			
EU-11	003-0208-9-0913	S	Diesel	Acrolein	107-02-8	8.11E-06	2.53E-04	3.81E-04	N/A	N/A	C3
EU-11	003-0208-9-0913	S	Diesel	Arsenic	7440-38-2	-	-	-	N/A	N/A	NA
EU-11	003-0208-9-0913	S	Diesel	Benzene	71-43-2	8.18E-05	2.56E-03	3.84E-03	N/A	N/A	C3
EU-11	003-0208-9-0913	S	Diesel	Beryllium	7440-41-7	-	-	-	N/A	N/A	NA
EU-11	003-0208-9-0913	S	Diesel	Cadmium	7440-43-9	-	-	-	N/A	N/A	NA
EU-11	003-0208-9-0913	S	Diesel	Formaldehyde	50-00-0	1.03E-04	3.23E-03	4.86E-03	N/A	N/A	C3
EU-11	003-0208-9-0913	S	Diesel	Mercury	7439-97-6	-	-	-	N/A	N/A	NA
EU-11	003-0208-9-0913	S	Diesel	Selenium	7782-49-2	-	-	-	N/A	N/A	NA
EU-11	003-0208-9-0913	S	Diesel	POM	N/A	1.47E-05	4.60E-04	6.91E-04	N/A	N/A	C3
EU-12	003-0208-9-0909	S	Diesel	Acrolein	107-02-8	2.94E-06	8.17E-05	4.74E-05	N/A	N/A	C3
EU-12	003-0208-9-0909	S	Diesel	Arsenic	7440-38-2	-	-	-	N/A	N/A	NA
EU-12	003-0208-9-0909	S	Diesel	Benzene	71-43-2	2.90E-04	8.05E-03	4.67E-03	N/A	N/A	C3
EU-12	003-0208-9-0909	S	Diesel	Beryllium	7440-41-7	-	-	-	N/A	N/A	NA
EU-12	003-0208-9-0909	S	Diesel	Cadmium	7440-43-9	-	-	-	N/A	N/A	NA
EU-12	003-0208-9-0909	S	Diesel	Formaldehyde	50-00-0	2.95E-05	8.18E-04	4.75E-04	N/A	N/A	C3
EU-12	003-0208-9-0909	S	Diesel	Mercury	7439-97-6	-	-	-	N/A	N/A	NA
EU-12	003-0208-9-0909	S	Diesel	Selenium	7782-49-2	-	-	-	N/A	N/A	NA
EU-12	003-0208-9-0909	S	Diesel	POM	N/A	7.91E-05	2.20E-03	1.28E-03	N/A	N/A	C3

**REPORTABLE TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

24-003-0208**Baltimore Washington International Thurgood Marshall Airport****Reportable Toxics**

Facility ID

Facility Name

Pollutant

Equipment Name	Registration No.	S / F	Fuel Type	Pollutant	CASRN	Actual Emissions			Control Device	Efficiency (%)	Estimation Method
						tons/yr	lbs/day	lbs/hr			
EU-13	003-0208-9-0911	S	Diesel	Acrolein	107-02-8	8.87E-07	2.77E-05	4.74E-05	N/A	N/A	C3
EU-13	003-0208-9-0911	S	Diesel	Arsenic	7440-38-2	-	-	-	N/A	N/A	NA
EU-13	003-0208-9-0911	S	Diesel	Benzene	71-43-2	8.74E-05	2.73E-03	4.67E-03	N/A	N/A	C3
EU-13	003-0208-9-0911	S	Diesel	Beryllium	7440-41-7	-	-	-	N/A	N/A	NA
EU-13	003-0208-9-0911	S	Diesel	Cadmium	7440-43-9	-	-	-	N/A	N/A	NA
EU-13	003-0208-9-0911	S	Diesel	Formaldehyde	50-00-0	8.88E-06	2.78E-04	4.75E-04	N/A	N/A	C3
EU-13	003-0208-9-0911	S	Diesel	Mercury	7439-97-6	-	-	-	N/A	N/A	NA
EU-13	003-0208-9-0911	S	Diesel	Selenium	7782-49-2	-	-	-	N/A	N/A	NA
EU-13	003-0208-9-0911	S	Diesel	POM	N/A	2.39E-05	7.46E-04	1.28E-03	N/A	N/A	C3
EU-14	003-0208-9-0915	S	Diesel	Acrolein	107-02-8	4.29E-07	1.34E-05	3.95E-05	N/A	N/A	C3
EU-14	003-0208-9-0915	S	Diesel	Arsenic	7440-38-2	-	-	-	N/A	N/A	NA
EU-14	003-0208-9-0915	S	Diesel	Benzene	71-43-2	4.22E-05	1.32E-03	3.89E-03	N/A	N/A	C3
EU-14	003-0208-9-0915	S	Diesel	Beryllium	7440-41-7	-	-	-	N/A	N/A	NA
EU-14	003-0208-9-0915	S	Diesel	Cadmium	7440-43-9	-	-	-	N/A	N/A	NA
EU-14	003-0208-9-0915	S	Diesel	Formaldehyde	50-00-0	4.30E-06	1.34E-04	3.96E-04	N/A	N/A	C3
EU-14	003-0208-9-0915	S	Diesel	Mercury	7439-97-6	-	-	-	N/A	N/A	NA
EU-14	003-0208-9-0915	S	Diesel	Selenium	7782-49-2	-	-	-	N/A	N/A	NA
EU-14	003-0208-9-0915	S	Diesel	POM	N/A	1.15E-05	3.61E-04	1.06E-03	N/A	N/A	C3

**REPORTABLE TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

24-003-0208Baltimore Washington International Thurgood Marshall AirportReportable Toxics

Facility ID

Facility Name

Pollutant

Equipment Name	Registration No.	S / F	Fuel Type	Pollutant	CASRN	Actual Emissions			Control Device	Efficiency (%)	Estimation Method
						tons/yr	lbs/day	lbs/hr			
EU-15	003-0208-9-0948	S	Diesel	Acrolein	107-02-8	1.28E-06	4.00E-05	7.12E-05	N/A	N/A	C3
EU-15	003-0208-9-0948	S	Diesel	Arsenic	7440-38-2	-	-	-	N/A	N/A	NA
EU-15	003-0208-9-0948	S	Diesel	Benzene	71-43-2	1.26E-04	3.94E-03	7.01E-03	N/A	N/A	C3
EU-15	003-0208-9-0948	S	Diesel	Beryllium	7440-41-7	-	-	-	N/A	N/A	NA
EU-15	003-0208-9-0948	S	Diesel	Cadmium	7440-43-9	-	-	-	N/A	N/A	NA
EU-15	003-0208-9-0948	S	Diesel	Formaldehyde	50-00-0	1.28E-05	4.01E-04	7.13E-04	N/A	N/A	C3
EU-15	003-0208-9-0948	S	Diesel	Mercury	7439-97-6	-	-	-	N/A	N/A	NA
EU-15	003-0208-9-0948	S	Diesel	Selenium	7782-49-2	-	-	-	N/A	N/A	NA
EU-15	003-0208-9-0948	S	Diesel	POM	N/A	3.45E-05	1.08E-03	1.91E-03	N/A	N/A	C3
EU-16	003-0208-9-1030	S	Diesel	Acrolein	107-02-8	3.70E-06	1.16E-04	1.58E-04	N/A	N/A	C3
EU-16	003-0208-9-1030	S	Diesel	Arsenic	7440-38-2	-	-	-	N/A	N/A	NA
EU-16	003-0208-9-1030	S	Diesel	Benzene	71-43-2	3.64E-04	1.14E-02	1.56E-02	N/A	N/A	C3
EU-16	003-0208-9-1030	S	Diesel	Beryllium	7440-41-7	-	-	-	N/A	N/A	NA
EU-16	003-0208-9-1030	S	Diesel	Cadmium	7440-43-9	-	-	-	N/A	N/A	NA
EU-16	003-0208-9-1030	S	Diesel	Formaldehyde	50-00-0	3.70E-05	1.16E-03	1.58E-03	N/A	N/A	C3
EU-16	003-0208-9-1030	S	Diesel	Mercury	7439-97-6	-	-	-	N/A	N/A	NA
EU-16	003-0208-9-1030	S	Diesel	Selenium	7782-49-2	-	-	-	N/A	N/A	NA
EU-16	003-0208-9-1030	S	Diesel	POM	N/A	9.95E-05	3.11E-03	4.26E-03	N/A	N/A	C3

**REPORTABLE TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

24-003-0208Baltimore Washington International Thurgood Marshall AirportReportable Toxics

Facility ID

Facility Name

Pollutant

Equipment Name	Registration No.	S / F	Fuel Type	Pollutant	CASRN	Actual Emissions			Control Device	Efficiency (%)	Estimation Method
						tons/yr	lbs/day	lbs/hr			
EU-17	003-0208-9-1053	S	Diesel	Acrolein	107-02-8	4.74E-07	1.58E-04	1.58E-04	N/A	N/A	C3
EU-17	003-0208-9-1053	S	Diesel	Arsenic	7440-38-2	-	-	-	N/A	N/A	NA
EU-17	003-0208-9-1053	S	Diesel	Benzene	71-43-2	4.67E-05	1.56E-02	1.56E-02	N/A	N/A	C3
EU-17	003-0208-9-1053	S	Diesel	Beryllium	7440-41-7	-	-	-	N/A	N/A	NA
EU-17	003-0208-9-1053	S	Diesel	Cadmium	7440-43-9	-	-	-	N/A	N/A	NA
EU-17	003-0208-9-1053	S	Diesel	Formaldehyde	50-00-0	4.75E-06	1.58E-03	1.58E-03	N/A	N/A	C3
EU-17	003-0208-9-1053	S	Diesel	Mercury	7439-97-6	-	-	-	N/A	N/A	NA
EU-17	003-0208-9-1053	S	Diesel	Selenium	7782-49-2	-	-	-	N/A	N/A	NA
EU-17	003-0208-9-1053	S	Diesel	POM	N/A	1.28E-05	4.26E-03	4.26E-03	N/A	N/A	C3
EU-18	003-0208-9-1070	S	Diesel	Acrolein	107-02-8	1.33E-06	4.17E-05	7.12E-05	N/A	N/A	C3
EU-18	003-0208-9-1070	S	Diesel	Arsenic	7440-38-2	-	-	-	N/A	N/A	NA
EU-18	003-0208-9-1070	S	Diesel	Benzene	71-43-2	1.31E-04	4.11E-03	7.01E-03	N/A	N/A	C3
EU-18	003-0208-9-1070	S	Diesel	Beryllium	7440-41-7	-	-	-	N/A	N/A	NA
EU-18	003-0208-9-1070	S	Diesel	Cadmium	7440-43-9	-	-	-	N/A	N/A	NA
EU-18	003-0208-9-1070	S	Diesel	Formaldehyde	50-00-0	1.34E-05	4.18E-04	7.13E-04	N/A	N/A	C3
EU-18	003-0208-9-1070	S	Diesel	Mercury	7439-97-6	-	-	-	N/A	N/A	NA
EU-18	003-0208-9-1070	S	Diesel	Selenium	7782-49-2	-	-	-	N/A	N/A	NA
EU-18	003-0208-9-1070	S	Diesel	POM	N/A	3.59E-05	1.12E-03	1.91E-03	N/A	N/A	C3

**REPORTABLE TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

24-003-0208Baltimore Washington International Thurgood Marshall AirportReportable Toxics

Facility ID

Facility Name

Pollutant

Equipment Name	Registration No.	S / F	Fuel Type	Pollutant	CASRN	Actual Emissions			Control Device	Efficiency (%)	Estimation Method
						tons/yr	lbs/day	lbs/hr			
EU-19	003-0208-5-0769	S	NG	Acrolein	107-02-8	-	-	-	N/A	N/A	NA
EU-19	003-0208-5-0769	S	NG	Arsenic	7440-38-2	7.84E-11	1.57E-07	3.90E-07	N/A	N/A	C3
EU-19	003-0208-5-0769	S	NG	Benzene	71-43-2	8.24E-10	1.65E-06	4.10E-06	N/A	N/A	C3
EU-19	003-0208-5-0769	S	NG	Beryllium	7440-41-7	4.71E-12	9.41E-09	2.34E-08	N/A	N/A	C3
EU-19	003-0208-5-0769	S	NG	Cadmium	7440-43-9	4.31E-10	8.63E-07	2.15E-06	N/A	N/A	C3
EU-19	003-0208-5-0769	S	NG	Formaldehyde	50-00-0	2.94E-08	5.88E-05	1.46E-04	N/A	N/A	C3
EU-19	003-0208-5-0769	S	NG	Mercury	7439-97-6	1.02E-10	2.04E-07	5.07E-07	N/A	N/A	C3
EU-19	003-0208-5-0769	S	NG	Selenium	7782-49-2	9.41E-12	1.88E-08	4.68E-08	N/A	N/A	C3
EU-19	003-0208-5-0769	S	NG	POM	N/A	3.46E-11	6.92E-08	1.72E-07	N/A	N/A	C3
EU-20	003-0208-5-0770	S	NG	Acrolein	107-02-8	-	-	-	N/A	N/A	NA
EU-20	003-0208-5-0770	S	NG	Arsenic	7440-38-2	7.84E-11	1.57E-07	3.90E-07	N/A	N/A	C3
EU-20	003-0208-5-0770	S	NG	Benzene	71-43-2	8.24E-10	1.65E-06	4.10E-06	N/A	N/A	C3
EU-20	003-0208-5-0770	S	NG	Beryllium	7440-41-7	4.71E-12	9.41E-09	2.34E-08	N/A	N/A	C3
EU-20	003-0208-5-0770	S	NG	Cadmium	7440-43-9	4.31E-10	8.63E-07	2.15E-06	N/A	N/A	C3
EU-20	003-0208-5-0770	S	NG	Formaldehyde	50-00-0	2.94E-08	5.88E-05	1.46E-04	N/A	N/A	C3
EU-20	003-0208-5-0770	S	NG	Mercury	7439-97-6	1.02E-10	2.04E-07	5.07E-07	N/A	N/A	C3
EU-20	003-0208-5-0770	S	NG	Selenium	7782-49-2	9.41E-12	1.88E-08	4.68E-08	N/A	N/A	C3
EU-20	003-0208-5-0770	S	NG	POM	N/A	3.46E-11	6.92E-08	1.72E-07	N/A	N/A	C3

**REPORTABLE TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

24-003-0208**Baltimore Washington International Thurgood Marshall Airport****Reportable Toxics**

Facility ID

Facility Name

Pollutant

Equipment Name	Registration No.	S / F	Fuel Type	Pollutant	CASRN	Actual Emissions			Control Device	Efficiency (%)	Estimation Method
						tons/yr	lbs/day	lbs/hr			
EU-23	003-0208-5-0771	S	NG	Acrolein	107-02-8	-	-	-	N/A	N/A	NA
EU-23	003-0208-5-0771	S	NG	Arsenic	7440-38-2	6.59E-07	1.40E-05	5.88E-07	N/A	N/A	C3
EU-23	003-0208-5-0771	S	NG	Benzene	71-43-2	6.92E-06	1.47E-04	6.18E-06	N/A	N/A	C3
EU-23	003-0208-5-0771	S	NG	Beryllium	7440-41-7	3.96E-08	8.42E-07	3.53E-08	N/A	N/A	C3
EU-23	003-0208-5-0771	S	NG	Cadmium	7440-43-9	3.63E-06	7.71E-05	3.24E-06	N/A	N/A	C3
EU-23	003-0208-5-0771	S	NG	Formaldehyde	50-00-0	2.47E-04	5.26E-03	2.21E-04	N/A	N/A	C3
EU-23	003-0208-5-0771	S	NG	Mercury	7439-97-6	8.57E-07	1.82E-05	7.65E-07	N/A	N/A	C3
EU-23	003-0208-5-0771	S	NG	Selenium	7782-49-2	7.91E-08	1.68E-06	7.06E-08	N/A	N/A	C3
EU-23	003-0208-5-0771	S	NG	POM	N/A	2.91E-07	6.19E-06	2.59E-07	N/A	N/A	C3
EU-24	003-0208-5-0772	S	NG	Acrolein	107-02-8	-	-	-	N/A	N/A	NA
EU-24	003-0208-5-0772	S	NG	Arsenic	7440-38-2	6.59E-07	1.40E-05	5.88E-07	N/A	N/A	C3
EU-24	003-0208-5-0772	S	NG	Benzene	71-43-2	6.92E-06	1.47E-04	6.18E-06	N/A	N/A	C3
EU-24	003-0208-5-0772	S	NG	Beryllium	7440-41-7	3.96E-08	8.42E-07	3.53E-08	N/A	N/A	C3
EU-24	003-0208-5-0772	S	NG	Cadmium	7440-43-9	3.63E-06	7.71E-05	3.24E-06	N/A	N/A	C3
EU-24	003-0208-5-0772	S	NG	Formaldehyde	50-00-0	2.47E-04	5.26E-03	2.21E-04	N/A	N/A	C3
EU-24	003-0208-5-0772	S	NG	Mercury	7439-97-6	8.57E-07	1.82E-05	7.65E-07	N/A	N/A	C3
EU-24	003-0208-5-0772	S	NG	Selenium	7782-49-2	7.91E-08	1.68E-06	7.06E-08	N/A	N/A	C3
EU-24	003-0208-5-0772	S	NG	POM	N/A	2.91E-07	6.19E-06	2.59E-07	N/A	N/A	C3

**REPORTABLE TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

24-003-0208Baltimore Washington International Thurgood Marshall AirportReportable Toxics

Facility ID

Facility Name

Pollutant

Equipment Name	Registration No.	S / F	Fuel Type	Pollutant	CASRN	Actual Emissions			Control Device	Efficiency (%)	Estimation Method
						tons/yr	lbs/day	lbs/hr			
EU-25	003-0208-5-0773	S	NG	Acrolein	107-02-8	-	-	-	N/A	N/A	NA
EU-25	003-0208-5-0773	S	NG	Arsenic	7440-38-2	6.59E-07	1.40E-05	5.88E-07	N/A	N/A	C3
EU-25	003-0208-5-0773	S	NG	Benzene	71-43-2	6.92E-06	1.47E-04	6.18E-06	N/A	N/A	C3
EU-25	003-0208-5-0773	S	NG	Beryllium	7440-41-7	3.96E-08	8.42E-07	3.53E-08	N/A	N/A	C3
EU-25	003-0208-5-0773	S	NG	Cadmium	7440-43-9	3.63E-06	7.71E-05	3.24E-06	N/A	N/A	C3
EU-25	003-0208-5-0773	S	NG	Formaldehyde	50-00-0	2.47E-04	5.26E-03	2.21E-04	N/A	N/A	C3
EU-25	003-0208-5-0773	S	NG	Mercury	7439-97-6	8.57E-07	1.82E-05	7.65E-07	N/A	N/A	C3
EU-25	003-0208-5-0773	S	NG	Selenium	7782-49-2	7.91E-08	1.68E-06	7.06E-08	N/A	N/A	C3
EU-25	003-0208-5-0773	S	NG	POM	N/A	2.91E-07	6.19E-06	2.59E-07	N/A	N/A	C3
EU-26	003-0208-5-0774	S	NG	Acrolein	107-02-8	-	-	-	N/A	N/A	NA
EU-26	003-0208-5-0774	S	NG	Arsenic	7440-38-2	6.59E-07	1.40E-05	5.88E-07	N/A	N/A	C3
EU-26	003-0208-5-0774	S	NG	Benzene	71-43-2	6.92E-06	1.47E-04	6.18E-06	N/A	N/A	C3
EU-26	003-0208-5-0774	S	NG	Beryllium	7440-41-7	3.96E-08	8.42E-07	3.53E-08	N/A	N/A	C3
EU-26	003-0208-5-0774	S	NG	Cadmium	7440-43-9	3.63E-06	7.71E-05	3.24E-06	N/A	N/A	C3
EU-26	003-0208-5-0774	S	NG	Formaldehyde	50-00-0	2.47E-04	5.26E-03	2.21E-04	N/A	N/A	C3
EU-26	003-0208-5-0774	S	NG	Mercury	7439-97-6	8.57E-07	1.82E-05	7.65E-07	N/A	N/A	C3
EU-26	003-0208-5-0774	S	NG	Selenium	7782-49-2	7.91E-08	1.68E-06	7.06E-08	N/A	N/A	C3
EU-26	003-0208-5-0774	S	NG	POM	N/A	2.91E-07	6.19E-06	2.59E-07	N/A	N/A	C3

**REPORTABLE TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

24-003-0208**Baltimore Washington International Thurgood Marshall Airport****Reportable Toxics**

Facility ID

Facility Name

Pollutant

Equipment Name	Registration No.	S / F	Fuel Type	Pollutant	CASRN	Actual Emissions			Control Device	Efficiency (%)	Estimation Method
						tons/yr	lbs/day	lbs/hr			
EU-27	003-0208-5-0794	S	NG	Acrolein	107-02-8	-	-	-	N/A	N/A	NA
EU-27	003-0208-5-0794	S	NG	Arsenic	7440-38-2	1.10E-07	4.69E-06	1.96E-07	N/A	N/A	C3
EU-27	003-0208-5-0794	S	NG	Benzene	71-43-2	1.16E-06	4.92E-05	2.06E-06	N/A	N/A	C3
EU-27	003-0208-5-0794	S	NG	Beryllium	7440-41-7	6.61E-09	2.81E-07	1.18E-08	N/A	N/A	C3
EU-27	003-0208-5-0794	S	NG	Cadmium	7440-43-9	6.06E-07	2.58E-05	1.08E-06	N/A	N/A	C3
EU-27	003-0208-5-0794	S	NG	Formaldehyde	50-00-0	4.13E-05	1.76E-03	7.35E-05	N/A	N/A	C3
EU-27	003-0208-5-0794	S	NG	Mercury	7439-97-6	1.43E-07	6.10E-06	2.55E-07	N/A	N/A	C3
EU-27	003-0208-5-0794	S	NG	Selenium	7782-49-2	1.32E-08	5.63E-07	2.35E-08	N/A	N/A	C3
EU-27	003-0208-5-0794	S	NG	POM	N/A	4.86E-08	2.07E-06	8.65E-08	N/A	N/A	C3
EU-28	003-0208-5-0808	S	NG	Acrolein	107-02-8	-	-	-	N/A	N/A	NA
EU-28	003-0208-5-0808	S	NG	Arsenic	7440-38-2	2.49E-07	9.23E-06	3.86E-07	N/A	N/A	C3
EU-28	003-0208-5-0808	S	NG	Benzene	71-43-2	2.62E-06	9.69E-05	4.05E-06	N/A	N/A	C3
EU-28	003-0208-5-0808	S	NG	Beryllium	7440-41-7	1.50E-08	5.54E-07	2.32E-08	N/A	N/A	C3
EU-28	003-0208-5-0808	S	NG	Cadmium	7440-43-9	1.37E-06	5.08E-05	2.12E-06	N/A	N/A	C3
EU-28	003-0208-5-0808	S	NG	Formaldehyde	50-00-0	9.34E-05	3.46E-03	1.45E-04	N/A	N/A	C3
EU-28	003-0208-5-0808	S	NG	Mercury	7439-97-6	3.24E-07	1.20E-05	5.02E-07	N/A	N/A	C3
EU-28	003-0208-5-0808	S	NG	Selenium	7782-49-2	2.99E-08	1.11E-06	4.63E-08	N/A	N/A	C3
EU-28	003-0208-5-0808	S	NG	POM	N/A	1.10E-07	4.07E-06	1.70E-07	N/A	N/A	C3

**REPORTABLE TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

24-003-0208Baltimore Washington International Thurgood Marshall AirportReportable Toxics

Facility ID

Facility Name

Pollutant

Equipment Name	Registration No.	S / F	Fuel Type	Pollutant	CASRN	Actual Emissions			Control Device	Efficiency (%)	Estimation Method
						tons/yr	lbs/day	lbs/hr			
EU-29	003-0208-9-1109	S	Diesel	Acrolein	107-02-8	2.38E-07	7.93E-05	5.93E-05	N/A	N/A	C3
EU-29	003-0208-9-1109	S	Diesel	Arsenic	7440-38-2	-	-	-	N/A	N/A	NA
EU-29	003-0208-9-1109	S	Diesel	Benzene	71-43-2	2.34E-05	7.81E-03	5.84E-03	N/A	N/A	C3
EU-29	003-0208-9-1109	S	Diesel	Beryllium	7440-41-7	-	-	-	N/A	N/A	NA
EU-29	003-0208-9-1109	S	Diesel	Cadmium	7440-43-9	-	-	-	N/A	N/A	NA
EU-29	003-0208-9-1109	S	Diesel	Formaldehyde	50-00-0	2.38E-06	7.94E-04	5.94E-04	N/A	N/A	C3
EU-29	003-0208-9-1109	S	Diesel	Mercury	7439-97-6	-	-	-	N/A	N/A	NA
EU-29	003-0208-9-1109	S	Diesel	Selenium	7782-49-2	-	-	-	N/A	N/A	NA
EU-29	003-0208-9-1109	S	Diesel	POM	N/A	6.40E-06	2.13E-03	1.60E-03	N/A	N/A	C3
EU-30	003-0208-5-0831	S	NG	Acrolein	107-02-8	-	-	-	N/A	N/A	NA
EU-30	003-0208-5-0831	S	NG	Arsenic	7440-38-2	1.82E-07	7.74E-06	3.24E-07	N/A	N/A	C3
EU-30	003-0208-5-0831	S	NG	Benzene	71-43-2	1.91E-06	8.12E-05	3.40E-06	N/A	N/A	C3
EU-30	003-0208-5-0831	S	NG	Beryllium	7440-41-7	1.09E-08	4.64E-07	1.94E-08	N/A	N/A	C3
EU-30	003-0208-5-0831	S	NG	Cadmium	7440-43-9	1.00E-06	4.26E-05	1.78E-06	N/A	N/A	C3
EU-30	003-0208-5-0831	S	NG	Formaldehyde	50-00-0	6.82E-05	2.90E-03	1.21E-04	N/A	N/A	C3
EU-30	003-0208-5-0831	S	NG	Mercury	7439-97-6	2.36E-07	1.01E-05	4.21E-07	N/A	N/A	C3
EU-30	003-0208-5-0831	S	NG	Selenium	7782-49-2	2.18E-08	9.28E-07	3.88E-08	N/A	N/A	C3
EU-30	003-0208-5-0831	S	NG	POM	N/A	8.02E-08	3.41E-06	1.43E-07	N/A	N/A	C3

**REPORTABLE TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

24-003-0208Baltimore Washington International Thurgood Marshall AirportReportable Toxics

Facility ID

Facility Name

Pollutant

Equipment Name	Registration No.	S / F	Fuel Type	Pollutant	CASRN	Actual Emissions			Control Device	Efficiency (%)	Estimation Method
						tons/yr	lbs/day	lbs/hr			
EU-31	003-0208-4-0886	S	No. 2	Acrolein	107-02-8	-	-	-	N/A	N/A	NA
EU-31	003-0208-4-0886	S	No. 2	Arsenic	7440-38-2	2.62E-06	3.09E-04	1.29E-05	N/A	N/A	C3
EU-31	003-0208-4-0886	S	No. 2	Benzene	71-43-2	1.00E-06	1.18E-04	4.92E-06	N/A	N/A	C3
EU-31	003-0208-4-0886	S	No. 2	Beryllium	7440-41-7	1.97E-06	2.32E-04	9.66E-06	N/A	N/A	C3
EU-31	003-0208-4-0886	S	No. 2	Cadmium	7440-43-9	1.97E-06	2.32E-04	9.66E-06	N/A	N/A	C3
EU-31	003-0208-4-0886	S	No. 2	Formaldehyde	50-00-0	1.55E-04	1.82E-02	7.59E-04	N/A	N/A	C3
EU-31	003-0208-4-0886	S	No. 2	Mercury	7439-97-6	1.97E-06	2.32E-04	9.66E-06	N/A	N/A	C3
EU-31	003-0208-4-0886	S	No. 2	Selenium	7782-49-2	9.84E-06	1.16E-03	4.83E-05	N/A	N/A	C3
EU-31	003-0208-4-0886	S	No. 2	POM	N/A	1.55E-05	1.82E-03	7.59E-05	N/A	N/A	C3
EU-32	003-0208-9-1140	S	Diesel	Acrolein	107-02-8	-	-	-	N/A	N/A	C3
EU-32	003-0208-9-1140	S	Diesel	Arsenic	7440-38-2	-	-	-	N/A	N/A	NA
EU-32	003-0208-9-1140	S	Diesel	Benzene	71-43-2	-	-	-	N/A	N/A	C3
EU-32	003-0208-9-1140	S	Diesel	Beryllium	7440-41-7	-	-	-	N/A	N/A	NA
EU-32	003-0208-9-1140	S	Diesel	Cadmium	7440-43-9	-	-	-	N/A	N/A	NA
EU-32	003-0208-9-1140	S	Diesel	Formaldehyde	50-00-0	-	-	-	N/A	N/A	C3
EU-32	003-0208-9-1140	S	Diesel	Mercury	7439-97-6	-	-	-	N/A	N/A	NA
EU-32	003-0208-9-1140	S	Diesel	Selenium	7782-49-2	-	-	-	N/A	N/A	NA
EU-32	003-0208-9-1140	S	Diesel	POM	N/A	-	-	-	N/A	N/A	C3

**REPORTABLE TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

24-003-0208Baltimore Washington International Thurgood Marshall AirportReportable Toxics

Facility ID

Facility Name

Pollutant

Equipment Name	Registration No.	S / F	Fuel Type	Pollutant	CASRN	Actual Emissions			Control Device	Efficiency (%)	Estimation Method
						tons/yr	lbs/day	lbs/hr			
D-Pier Boiler 1	003-0208-5-0880	S	NG	Acrolein	107-02-8	-	-	-	N/A	N/A	NA
D-Pier Boiler 1	003-0208-5-0880	S	NG	Arsenic	7440-38-2	3.51E-07	1.40E-05	5.88E-07	N/A	N/A	C3
D-Pier Boiler 1	003-0208-5-0880	S	NG	Benzene	71-43-2	3.69E-06	1.47E-04	6.18E-06	N/A	N/A	C3
D-Pier Boiler 1	003-0208-5-0880	S	NG	Beryllium	7440-41-7	2.11E-08	8.42E-07	3.53E-08	N/A	N/A	C3
D-Pier Boiler 1	003-0208-5-0880	S	NG	Cadmium	7440-43-9	1.93E-06	7.72E-05	3.24E-06	N/A	N/A	C3
D-Pier Boiler 1	003-0208-5-0880	S	NG	Formaldehyde	50-00-0	1.32E-04	5.27E-03	2.21E-04	N/A	N/A	C3
D-Pier Boiler 1	003-0208-5-0880	S	NG	Mercury	7439-97-6	4.56E-07	1.83E-05	7.65E-07	N/A	N/A	C3
D-Pier Boiler 1	003-0208-5-0880	S	NG	Selenium	7782-49-2	4.21E-08	1.68E-06	7.06E-08	N/A	N/A	C3
D-Pier Boiler 1	003-0208-5-0880	S	NG	POM	N/A	1.55E-07	6.19E-06	2.59E-07	N/A	N/A	C3
D-Pier Boiler 2	003-0208-5-0881	S	NG	Acrolein	107-02-8	-	-	-	N/A	N/A	NA
D-Pier Boiler 2	003-0208-5-0881	S	NG	Arsenic	7440-38-2	3.51E-07	1.40E-05	5.88E-07	N/A	N/A	C3
D-Pier Boiler 2	003-0208-5-0881	S	NG	Benzene	71-43-2	3.69E-06	1.47E-04	6.18E-06	N/A	N/A	C3
D-Pier Boiler 2	003-0208-5-0881	S	NG	Beryllium	7440-41-7	2.11E-08	8.42E-07	3.53E-08	N/A	N/A	C3
D-Pier Boiler 2	003-0208-5-0881	S	NG	Cadmium	7440-43-9	1.93E-06	7.72E-05	3.24E-06	N/A	N/A	C3
D-Pier Boiler 2	003-0208-5-0881	S	NG	Formaldehyde	50-00-0	1.32E-04	5.27E-03	2.21E-04	N/A	N/A	C3
D-Pier Boiler 2	003-0208-5-0881	S	NG	Mercury	7439-97-6	4.56E-07	1.83E-05	7.65E-07	N/A	N/A	C3
D-Pier Boiler 2	003-0208-5-0881	S	NG	Selenium	7782-49-2	4.21E-08	1.68E-06	7.06E-08	N/A	N/A	C3
D-Pier Boiler 2	003-0208-5-0881	S	NG	POM	N/A	1.55E-07	6.19E-06	2.59E-07	N/A	N/A	C3

**REPORTABLE TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

24-003-0208

Facility ID

Baltimore Washington International Thurgood Marshall Airport

Facility Name

Reportable Toxics

Pollutant

Equipment Name	Registration No.	S / F	Fuel Type	Pollutant	CASRN	Actual Emissions			Control Device	Efficiency (%)	Estimation Method
						tons/yr	lbs/day	lbs/hr			

Pollutant Totals		tons/yr	lbs/day	lbs/hr
Acrolein	107-02-8	2.46E-05	9.72E-04	1.25E-03
Arsenic	7440-38-2	1.84E-05	2.36E-03	5.85E-04
Benzene	71-43-2	1.86E-03	8.17E-02	9.01E-02
Beryllium	7440-41-7	3.37E-06	1.27E-03	4.17E-04
Cadmium	7440-43-9	8.58E-05	5.25E-03	5.89E-04
Formaldehyde	50-00-0	6.15E-03	3.81E-01	5.80E-02
Mercury	7439-97-6	2.22E-05	2.18E-03	4.56E-04
Selenium	7782-49-2	1.41E-05	6.20E-03	2.08E-03
POM	N/A	4.83E-04	2.97E-02	2.74E-02
Total Toxics	-	8.66E-03	5.11E-01	1.81E-01

**BILLABLE TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

24-003-0208

Facility ID

Baltimore Washington International Thurgood Marshall Airport

Facility Name

Billable TAPs

Pollutant

Chemical Name	CAS Number	Actual Emissions			Estimation Method
		tons/yr	lbs/day	lbs/hr	
carbon disulfide	75-15-0	-	-	-	
carbonyl sulfide	463-58-1	-	-	-	
chlorine	7782-50-5	-	-	-	
cyanide compounds	57-12-5	-	-	-	
hydrochloric acid	7647-01-0	-	-	-	
hydrogen fluoride	7664-39-3	-	-	-	
methyl chloroform	71-55-6	-	-	-	
methylene chloride	75-09-2	-	-	-	
perchloroethylene	127-18-4	-	-	-	
phosphine	7803-51-2	-	-	-	
titanium tetrachloride	7550-45-0	-	-	-	

*if any amount of emissions are reported for these compounds, please also include the emissions broken down by equipment number in Form 4

PLEASE NOTE: Be sure to attach all data and calculations necessary to support the emissions figures shown above.

See Attachment 1 for minimum reporting values.

This form to include only the eleven chemicals identified.

**GREENHOUSE GASES
EMISSIONS CERTIFICATION REPORT**

24-003-0208Baltimore Washington International Thurgood Marshall AirportGreenhouse Gases

Facility ID

Facility Name

Pollutant

Equipment Name	Registration No.	S / F	Fuel Type	CO ₂		CH ₄		N ₂ O		HFCs		PFCs		SF ₆		Estimation Methods
				tons/yr	lbs/day	tons/yr	lbs/day	tons/yr	lbs/day	tons/yr	lbs/day	tons/yr	lbs/day	tons/yr	lbs/day	
EU-1	003-0208-5-0681	S	NG	2.76E+03	1.53E+05	5.20E-02	2.89E+00	5.20E-03	2.89E-01	-	-	-	-	-	-	C5
EU-1	003-0208-5-0681	S	No. 2	1.08E+01	2.16E+04	4.39E-04	8.78E-01	8.78E-05	1.76E-01	-	-	-	-	-	-	C5
EU-2	003-0208-5-0682	S	NG	2.76E+03	1.53E+05	5.20E-02	2.89E+00	5.20E-03	2.89E-01	-	-	-	-	-	-	C5
EU-2	003-0208-5-0682	S	No. 2	1.08E+01	2.16E+04	4.39E-04	8.78E-01	8.78E-05	1.76E-01	-	-	-	-	-	-	C5
EU-3	003-0208-5-0683	S	NG	1.25E+03	6.96E+04	2.36E-02	1.31E+00	2.36E-03	1.31E-01	-	-	-	-	-	-	C5
EU-3	003-0208-5-0683	S	No. 2	4.92E+00	9.84E+03	2.00E-04	3.99E-01	3.99E-05	7.98E-02	-	-	-	-	-	-	C5
EU-4	003-0208-9-0916	S	Diesel	2.05E+01	6.40E+02	8.31E-04	2.60E-02	1.66E-04	5.20E-03	-	-	-	-	-	-	C5
EU-5	003-0208-9-0910	S	Diesel	2.70E+01	8.44E+02	1.10E-03	3.42E-02	2.19E-04	6.84E-03	-	-	-	-	-	-	C5
EU-6	003-0208-9-0914	S	Diesel	3.09E+01	9.66E+02	1.25E-03	3.92E-02	2.51E-04	7.84E-03	-	-	-	-	-	-	C5
EU-7	003-0208-9-0894	S	Gasoline	-	-	-	-	-	-	-	-	-	-	-	-	NA
EU-8	003-0208-4-0887	S	Jet-A	3.04E+02	3.04E+05	3.11E-03	3.11E+00	3.75E-03	3.75E+00	-	-	-	-	-	-	C5
EU-10	003-0208-9-0912	S	Diesel	2.85E+01	8.90E+02	1.15E-03	3.61E-02	2.31E-04	7.22E-03	-	-	-	-	-	-	C5
EU-11	003-0208-9-0913	S	Diesel	1.43E+01	4.47E+02	5.80E-04	1.81E-02	1.16E-04	3.62E-03	-	-	-	-	-	-	C5
EU-12	003-0208-9-0909	S	Diesel	6.09E+01	1.69E+03	2.47E-03	6.86E-02	4.94E-04	1.37E-02	-	-	-	-	-	-	C5
EU-13	003-0208-9-0911	S	Diesel	1.84E+01	5.74E+02	7.45E-04	2.33E-02	1.49E-04	4.65E-03	-	-	-	-	-	-	C5
EU-14	003-0208-9-0915	S	Diesel	8.88E+00	2.77E+02	3.60E-04	1.13E-02	7.20E-05	2.25E-03	-	-	-	-	-	-	C5
EU-15	003-0208-9-0948	S	Diesel	2.65E+01	8.28E+02	1.08E-03	3.36E-02	2.15E-04	6.72E-03	-	-	-	-	-	-	C5
EU-16	003-0208-9-1030	S	Diesel	7.66E+01	2.39E+03	3.11E-03	9.71E-02	6.21E-04	1.94E-02	-	-	-	-	-	-	C5
EU-17	003-0208-9-1053	S	Diesel	9.82E+00	3.27E+03	3.98E-04	1.33E-01	7.97E-05	2.66E-02	-	-	-	-	-	-	C5
EU-18	003-0208-9-1070	S	Diesel	2.76E+01	8.63E+02	1.12E-03	3.50E-02	2.24E-04	7.00E-03	-	-	-	-	-	-	C5
EU-19	003-0208-5-0769	S	NG	4.71E-02	9.41E+01	8.87E-07	1.77E-03	8.87E-08	1.77E-04	-	-	-	-	-	-	C5
EU-20	003-0208-5-0770	S	NG	4.71E-02	9.41E+01	8.87E-07	1.77E-03	8.87E-08	1.77E-04	-	-	-	-	-	-	C5

**GREENHOUSE GASES
EMISSIONS CERTIFICATION REPORT**

24-003-0208

Baltimore Washington International Thurgood Marshall Airport

Greenhouse Gases

Facility ID

Facility Name

Pollutant

Equipment Name	Registration No.	S / F	Fuel Type	CO ₂		CH ₄		N ₂ O		HFCs		PFCs		SF ₆		Estimation Methods
				tons/yr	lbs/day	tons/yr	lbs/day	tons/yr	lbs/day	tons/yr	lbs/day	tons/yr	lbs/day	tons/yr	lbs/day	
EU-23	003-0208-5-0771	S	NG	3.96E+02	8.42E+03	7.46E-03	1.59E-01	7.46E-04	1.59E-02	-	-	-	-	-	-	C5
EU-24	003-0208-5-0772	S	NG	3.96E+02	8.42E+03	7.46E-03	1.59E-01	7.46E-04	1.59E-02	-	-	-	-	-	-	C5
EU-25	003-0208-5-0773	S	NG	3.96E+02	8.42E+03	7.46E-03	1.59E-01	7.46E-04	1.59E-02	-	-	-	-	-	-	C5
EU-26	003-0208-5-0774	S	NG	3.96E+02	8.42E+03	7.46E-03	1.59E-01	7.46E-04	1.59E-02	-	-	-	-	-	-	C5
EU-27	003-0208-5-0794	S	NG	6.61E+01	2.81E+03	1.25E-03	5.30E-02	1.25E-04	5.30E-03	-	-	-	-	-	-	C5
EU-28	003-0208-5-0808	S	NG	1.50E+02	5.54E+03	2.82E-03	1.04E-01	2.82E-04	1.04E-02	-	-	-	-	-	-	C5
EU-29	003-0208-9-1109	S	Diesel	4.92E+00	1.64E+03	2.00E-04	6.65E-02	3.99E-05	1.33E-02	-	-	-	-	-	-	C5
EU-30	003-0208-5-0831	S	NG	1.09E+02	4.64E+03	2.06E-03	8.75E-02	2.06E-04	8.75E-03	-	-	-	-	-	-	C5
EU-31	003-0208-4-0886	S	No. 2	1.05E+02	1.24E+04	4.28E-03	5.03E-01	8.56E-04	1.01E-01	-	-	-	-	-	-	C5
EU-32	003-0208-9-1140	S	Diesel	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-	-	-	-	-	-	C5
D-Pier Boiler 1	003-0208-5-0880	S	NG	2.11E+02	8.43E+03	3.97E-03	1.59E-01	3.97E-04	1.59E-02	-	-	-	-	-	-	C5
D-Pier Boiler 2	003-0208-5-0881	S	NG	2.11E+02	8.43E+03	3.97E-03	1.59E-01	3.97E-04	1.59E-02	-	-	-	-	-	-	C5
Total Emissions				9.89E+03	8.25E+05	1.94E-01	1.47E+01	2.48E-02	5.23E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	

Supporting Calculation

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Criteria Pollutants^(1,2), tons/year

Criteria Pollutant	Boilers	Generators	Training Fires	Fuel Storage	Total
VOC	0.419	0.200	8.428	0.679	9.72
NO _x	13.526	7.068	0.144	-	20.74
CO	6.395	1.858	4.269	-	12.52
PM _{2.5}	0.145	0.104	2.796	-	3.05
PM ₁₀	0.150	0.147	2.796	-	3.09
PM _{filterable}	0.156	0.135	2.796	-	3.09
PM _{cond}	0.440	0.017	-	-	0.46
SO ₂	0.047	0.003	0.098	-	0.15
Lead	0.000	-	-	-	0.00
Total	21.277	9.531	21.327	0.679	52.814

Hazardous Air Pollutants, HAP^(1,2), tons/yr

HAP	Boilers	Generators	Training Fires	Fuel Storage	Total
Acetaldehyde	0.00E+00	1.20E-04	-	-	1.20E-04
Acrolein	0.00E+00	2.46E-05	-	-	2.46E-05
Arsenic	1.84E-05	0.00E+00	-	-	1.84E-05
Barium	3.33E-04	0.00E+00	-	-	3.33E-04
Benzene	1.60E-04	1.70E-03	-	-	1.86E-03
Beryllium	3.37E-06	0.00E+00	-	-	3.37E-06
Cadmium	8.58E-05	0.00E+00	-	-	8.58E-05
Chromium	1.09E-04	0.00E+00	-	-	1.09E-04
Cobalt	6.37E-06	0.00E+00	-	-	6.37E-06
Dichlorobenzene	9.09E-05	0.00E+00	-	-	9.09E-05
Formaldehyde	5.88E-03	2.68E-04	-	-	6.15E-03
Hexane	1.36E-01	0.00E+00	-	-	1.36E-01
Manganese	3.37E-05	0.00E+00	-	-	3.37E-05
Mercury	2.22E-05	0.00E+00	-	-	2.22E-05
Naphthalene	5.29E-05	2.79E-04	-	-	3.32E-04
Nickel	1.62E-04	0.00E+00	-	-	1.62E-04
Selenium	1.41E-05	0.00E+00	-	-	1.41E-05
Toluene	2.94E-04	6.23E-04	-	-	9.17E-04
Xylene	6.40E-07	4.28E-04	-	-	4.29E-04
POM	2.60E-05	4.57E-04	-	-	4.83E-04
Total HAPs	1.44E-01	3.90E-03	-	-	1.48E-01

Notes:

1 - Actual emissions are based on reported fuel usage in 2021.

2 - Estimation methods for HAPs and PM_{2.5} from training fires are not available.

Greenhouse Gases, GHGs

IPCC GHGs	Direct Emissions				Total	
	Combustion Sources			Fugitive Sources	Short tons/yr CO ₂ e	Metric tons/yr CO ₂ e
	Boilers	Generators	Training Fires	HVAC Chillers		
CO ₂	9.23E+03	3.55E+02	3.04E+02	-	9.89E+03	8.97E+03
N ₂ O	1.82E-02	2.88E-03	3.75E-03	-	7.40E+00	6.71E+00
CH ₄	1.77E-01	1.44E-02	3.11E-03	-	4.86E+00	4.41E+00
PFC	-	-	-	-	-	-
HFC	-	-	-	-	-	-
SF ₆	-	-	-	-	-	-
Total GHGs	9.23E+03	3.55E+02	3.04E+02	-	9.90E+03	8.98E+03

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Annual Fuel Usage

Unit	Type	Natural Gas (MMcf)	No. 2 Distillate (Mgal)	Diesel (Mgal)	Gasoline (Mgal)	Jet A (Mgal)
EU-1	Boiler	45.938	0.962	-	-	-
EU-2	Boiler	45.938	0.962	-	-	-
EU-3	Boiler	20.881	0.437	-	-	-
EU-4	Generator	-	-	1.796	-	-
EU-5	Generator	-	-	2.366	-	-
EU-6	Generator	-	-	2.710	-	-
EU-7	Fuel Storage	-	-	-	142.366	-
EU-8	Training Fires	-	-	-	-	28.838
EU-10	Generator	-	-	2.495	-	-
EU-11	Generator	-	-	1.252	-	-
EU-12	Generator	-	-	5.333	-	-
EU-13	Generator	-	-	1.609	-	-
EU-14	Generator	-	-	0.778	-	-
EU-15	Generator	-	-	2.323	-	-
EU-16	Generator	-	-	6.708	-	-
EU-17	Generator	-	-	0.860	-	-
EU-18	Generator	-	-	2.420	-	-
EU-19	Boiler	0.001	-	-	-	-
EU-20	Boiler	0.001	-	-	-	-
EU-23	Boiler	6.592	-	-	-	-
EU-24	Boiler	6.592	-	-	-	-
EU-25	Boiler	6.592	-	-	-	-
EU-26	Boiler	6.592	-	-	-	-
EU-27	Boiler	1.102	-	-	-	-
EU-28	Boiler	2.492	-	-	-	-
EU-29	Generator	-	-	0.431	-	-
EU-30	Boiler	1.818	-	-	-	-
EU-31	Boiler	-	9.374	-	-	-
EU-32	Generator	-	-	0.000	-	-
D-Pier Boiler 1	Boiler	3.510	-	-	-	-
D-Pier Boiler 2	Boiler	3.510	-	-	-	-

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 Criteria Pollutants

Source Description and Location	Source Process Material	Annual Process Throughput		Annual Process Duration		Criteria Pollutant	Emission Factors			Actual Emission Estimates		
		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day
EU-1 CUP Boiler #1 (55 MMBtu/hr)	Natural Gas	45.94	MMcf	851.93	hr	VOC	5.50	lb/MMcf	1	2.97E-01	1.26E-01	7.02E+00
		45.94	MMcf	851.93	hr	NO _x	245.26	lb/MMcf	6	1.32E+01	5.63E+00	3.13E+02
		45.94	MMcf	851.93	hr	CO	84.00	lb/MMcf	1	4.53E+00	1.93E+00	1.07E+02
		45.94	MMcf	851.93	hr	PM _{2.5}	1.90	lb/MMcf	1	1.02E-01	4.36E-02	2.42E+00
		45.94	MMcf	851.93	hr	PM ₁₀	1.90	lb/MMcf	1	1.02E-01	4.36E-02	2.42E+00
		45.94	MMcf	851.93	hr	PM _{filterable}	1.90	lb/MMcf	1	1.02E-01	4.36E-02	2.42E+00
		45.94	MMcf	851.93	hr	PM _{cond}	5.70	lb/MMcf	1	3.07E-01	1.31E-01	7.27E+00
		45.94	MMcf	851.93	hr	SO ₂	0.60	lb/MMcf	1	3.24E-02	1.38E-02	7.66E-01
	No. 2 Distillate	0.96	1000 gal	2.45	hr	VOC	0.34	lb/1000 gal	1	1.34E-01	1.64E-04	3.27E-01
		0.96	1000 gal	2.45	hr	NO _x	22.18	lb/1000 gal	6	8.72E+00	1.07E-02	2.13E+01
		0.96	1000 gal	2.45	hr	CO	5.00	lb/1000 gal	1	1.96E+00	2.40E-03	4.81E+00
		0.96	1000 gal	2.45	hr	PM _{2.5}	0.25	lb/1000 gal	1	9.82E-02	1.20E-04	2.40E-01
		0.96	1000 gal	2.45	hr	PM ₁₀	1.00	lb/1000 gal	1	3.93E-01	4.81E-04	9.62E-01
		0.96	1000 gal	2.45	hr	PM _{filterable}	2.00	lb/1000 gal	1	7.86E-01	9.62E-04	1.92E+00
0.96		1000 gal	2.45	hr	PM _{cond}	1.30	lb/1000 gal	1	5.11E-01	6.25E-04	1.25E+00	
0.96	1000 gal	2.45	hr	SO ₂	0.21	lb/1000 gal	1	8.37E-02	1.02E-04	2.05E-01		
0.96	1000 gal	2.45	hr	Lead	1.26E-03	lb/1000 gal	1	4.95E-04	6.06E-07	1.21E-03		
EU-2 CUP Boiler #2 (55 MMBtu/hr)	Natural Gas	45.94	MMcf	851.93	hr	VOC	5.50	lb/MMcf	1	2.97E-01	1.26E-01	7.02E+00
		45.94	MMcf	851.93	hr	NO _x	207.51	lb/MMcf	6	1.12E+01	4.77E+00	2.65E+02
		45.94	MMcf	851.93	hr	CO	84.00	lb/MMcf	1	4.53E+00	1.93E+00	1.07E+02
		45.94	MMcf	851.93	hr	PM _{2.5}	1.90	lb/MMcf	1	1.02E-01	4.36E-02	2.42E+00
		45.94	MMcf	851.93	hr	PM ₁₀	1.90	lb/MMcf	1	1.02E-01	4.36E-02	2.42E+00
		45.94	MMcf	851.93	hr	PM _{filterable}	1.90	lb/MMcf	1	1.02E-01	4.36E-02	2.42E+00
		45.94	MMcf	851.93	hr	PM _{cond}	5.70	lb/MMcf	1	3.07E-01	1.31E-01	7.27E+00
		45.94	MMcf	851.93	hr	SO ₂	0.60	lb/MMcf	1	3.24E-02	1.38E-02	7.66E-01
	No. 2 Distillate	0.96	1000 gal	2.45	hr	VOC	0.34	lb/1000 gal	1	1.34E-01	1.64E-04	3.27E-01
		0.96	1000 gal	2.45	hr	NO _x	22.25	lb/1000 gal	6	8.74E+00	1.07E-02	2.14E+01
		0.96	1000 gal	2.45	hr	CO	5.00	lb/1000 gal	1	1.96E+00	2.40E-03	4.81E+00
		0.96	1000 gal	2.45	hr	PM _{2.5}	0.25	lb/1000 gal	1	9.82E-02	1.20E-04	2.40E-01
		0.96	1000 gal	2.45	hr	PM ₁₀	1.00	lb/1000 gal	1	3.93E-01	4.81E-04	9.62E-01
		0.96	1000 gal	2.45	hr	PM _{filterable}	2.00	lb/1000 gal	1	7.86E-01	9.62E-04	1.92E+00
0.96		1000 gal	2.45	hr	PM _{cond}	1.30	lb/1000 gal	1	5.11E-01	6.25E-04	1.25E+00	
0.96	1000 gal	2.45	hr	SO ₂	0.21	lb/1000 gal	1	8.37E-02	1.02E-04	2.05E-01		
0.96	1000 gal	2.45	hr	Lead	1.26E-03	lb/1000 gal	1	4.95E-04	6.06E-07	1.21E-03		
EU-3 CUP Boiler #3 (25 MMBtu/hr)	Natural Gas	20.88	MMcf	851.93	hr	VOC	5.50	lb/MMcf	1	1.35E-01	5.74E-02	3.19E+00
		20.88	MMcf	851.93	hr	NO _x	178.03	lb/MMcf	6	4.36E+00	1.86E+00	1.03E+02
		20.88	MMcf	851.93	hr	CO	84.00	lb/MMcf	1	2.06E+00	8.77E-01	4.87E+01
		20.88	MMcf	851.93	hr	PM _{2.5}	1.90	lb/MMcf	1	4.66E-02	1.98E-02	1.10E+00
		20.88	MMcf	851.93	hr	PM ₁₀	1.90	lb/MMcf	1	4.66E-02	1.98E-02	1.10E+00
		20.88	MMcf	851.93	hr	PM _{filterable}	1.90	lb/MMcf	1	4.66E-02	1.98E-02	1.10E+00
		20.88	MMcf	851.93	hr	PM _{cond}	5.70	lb/MMcf	1	1.40E-01	5.95E-02	3.31E+00
		20.88	MMcf	851.93	hr	SO ₂	0.60	lb/MMcf	1	1.47E-02	6.26E-03	3.48E-01
	No. 2 Distillate	0.44	1000 gal	2.45	hr	VOC	0.34	lb/1000 gal	1	6.07E-02	7.43E-05	1.49E-01
		0.44	1000 gal	2.45	hr	NO _x	33.56	lb/1000 gal	6	5.99E+00	7.34E-03	1.47E+01
		0.44	1000 gal	2.45	hr	CO	5.00	lb/1000 gal	1	8.93E-01	1.09E-03	2.19E+00
		0.44	1000 gal	2.45	hr	PM _{2.5}	0.25	lb/1000 gal	1	4.46E-02	5.47E-05	1.09E-01
		0.44	1000 gal	2.45	hr	PM ₁₀	1.00	lb/1000 gal	1	1.79E-01	2.19E-04	4.37E-01
		0.44	1000 gal	2.45	hr	PM _{filterable}	2.00	lb/1000 gal	1	3.57E-01	4.37E-04	8.74E-01
0.44		1000 gal	2.45	hr	PM _{cond}	1.30	lb/1000 gal	1	2.32E-01	2.84E-04	5.68E-01	
0.44	1000 gal	2.45	hr	SO ₂	0.21	lb/1000 gal	1	3.80E-02	4.66E-05	9.31E-02		
0.44	1000 gal	2.45	hr	Lead	1.26E-03	lb/1000 gal	1	2.25E-04	2.75E-07	5.51E-04		

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Source Description and Location	Source Process Material	Annual Process Throughput		Annual Process Duration		Criteria Pollutant	Emission Factors			Actual Emission Estimates		
		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day
EU-31 Building 123 Boiler (3.22 MMBtu/hr)	No. 2 Distillate	9.37	1000 gal	407.57	hr	VOC	0.34	lb/1000 gal	1	7.82E-03	1.59E-03	1.87E-01
		9.37	1000 gal	407.57	hr	NO _x	20.00	lb/1000 gal	1	4.60E-01	9.37E-02	1.10E+01
		9.37	1000 gal	407.57	hr	CO	5.00	lb/1000 gal	1	1.15E-01	2.34E-02	2.76E+00
		9.37	1000 gal	407.57	hr	PM _{2.5}	0.25	lb/1000 gal	1	5.75E-03	1.17E-03	1.38E-01
		9.37	1000 gal	407.57	hr	PM ₁₀	1.00	lb/1000 gal	1	2.30E-02	4.69E-03	5.51E-01
		9.37	1000 gal	407.57	hr	PM _{filterable}	2.00	lb/1000 gal	1	4.60E-02	9.37E-03	1.10E+00
		9.37	1000 gal	407.57	hr	PM _{cond}	1.30	lb/1000 gal	1	2.99E-02	6.09E-03	7.17E-01
		9.37	1000 gal	407.57	hr	SO ₂	0.21	lb/1000 gal	1	4.90E-03	9.98E-04	1.17E-01
EU-19 Boiler #1 - Concourse E (1.99 MMBtu/hr)	Natural Gas	0.00	MMcf	0.40	hr	VOC	5.50	lb/MMcf	1	1.07E-02	2.16E-06	4.31E-03
		0.00	MMcf	0.40	hr	NO _x	50.00	lb/MMcf	1	9.75E-02	1.96E-05	3.92E-02
		0.00	MMcf	0.40	hr	CO	84.00	lb/MMcf	1	1.64E-01	3.29E-05	6.59E-02
		0.00	MMcf	0.40	hr	PM _{2.5}	1.90	lb/MMcf	1	3.71E-03	7.45E-07	1.49E-03
		0.00	MMcf	0.40	hr	PM ₁₀	1.90	lb/MMcf	1	3.71E-03	7.45E-07	1.49E-03
		0.00	MMcf	0.40	hr	PM _{filterable}	1.90	lb/MMcf	1	3.71E-03	7.45E-07	1.49E-03
		0.00	MMcf	0.40	hr	PM _{cond}	5.70	lb/MMcf	1	1.11E-02	2.24E-06	4.47E-03
		0.00	MMcf	0.40	hr	SO ₂	0.60	lb/MMcf	1	1.17E-03	2.35E-07	4.71E-04
EU-20 Boilers #2 - Concourse E (1.99 MMBtu/hr)	Natural Gas	0.00	MMcf	0.40	hr	VOC	5.50	lb/MMcf	1	1.07E-02	2.16E-06	4.31E-03
		0.00	MMcf	0.40	hr	NO _x	50.00	lb/MMcf	1	9.75E-02	1.96E-05	3.92E-02
		0.00	MMcf	0.40	hr	CO	84.00	lb/MMcf	1	1.64E-01	3.29E-05	6.59E-02
		0.00	MMcf	0.40	hr	PM _{2.5}	1.90	lb/MMcf	1	3.71E-03	7.45E-07	1.49E-03
		0.00	MMcf	0.40	hr	PM ₁₀	1.90	lb/MMcf	1	3.71E-03	7.45E-07	1.49E-03
		0.00	MMcf	0.40	hr	PM _{filterable}	1.90	lb/MMcf	1	3.71E-03	7.45E-07	1.49E-03
		0.00	MMcf	0.40	hr	PM _{cond}	5.70	lb/MMcf	1	1.11E-02	2.24E-06	4.47E-03
		0.00	MMcf	0.40	hr	SO ₂	0.60	lb/MMcf	1	1.17E-03	2.35E-07	4.71E-04
EU-23 Boiler #1 - Concourse B (3.0 MMBtu/hr)	Natural Gas	6.59	MMcf	2,241.20	hr	VOC	5.50	lb/MMcf	1	1.62E-02	1.81E-02	3.86E-01
		6.59	MMcf	2,241.20	hr	NO _x	50.00	lb/MMcf	1	1.47E-01	1.65E-01	3.51E+00
		6.59	MMcf	2,241.20	hr	CO	84.00	lb/MMcf	1	2.47E-01	2.77E-01	5.89E+00
		6.59	MMcf	2,241.20	hr	PM _{2.5}	1.90	lb/MMcf	1	5.59E-03	6.26E-03	1.33E-01
		6.59	MMcf	2,241.20	hr	PM ₁₀	1.90	lb/MMcf	1	5.59E-03	6.26E-03	1.33E-01
		6.59	MMcf	2,241.20	hr	PM _{filterable}	1.90	lb/MMcf	1	5.59E-03	6.26E-03	1.33E-01
		6.59	MMcf	2,241.20	hr	PM _{cond}	5.70	lb/MMcf	1	1.68E-02	1.88E-02	4.00E-01
		6.59	MMcf	2,241.20	hr	SO ₂	0.60	lb/MMcf	1	1.76E-03	1.98E-03	4.21E-02
		6.59	MMcf	2,241.20	hr	Lead	5.00E-04	lb/MMcf	1	1.47E-06	1.65E-06	3.51E-05

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Source Description and Location	Source Process Material	Annual Process Throughput		Annual Process Duration		Criteria Pollutant	Emission Factors			Actual Emission Estimates		
		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day
EU-24 Boiler #2 - Concourse B (3.0 MMBtu/hr)	Natural Gas	6.59	MMcf	2,241.20	hr	VOC	5.50	lb/MMcf	1	1.62E-02	1.81E-02	3.86E-01
		6.59	MMcf	2,241.20	hr	NO _x	50.00	lb/MMcf	1	1.47E-01	1.65E-01	3.51E+00
		6.59	MMcf	2,241.20	hr	CO	84.00	lb/MMcf	1	2.47E-01	2.77E-01	5.89E+00
		6.59	MMcf	2,241.20	hr	PM _{2.5}	1.90	lb/MMcf	1	5.59E-03	6.26E-03	1.33E-01
		6.59	MMcf	2,241.20	hr	PM ₁₀	1.90	lb/MMcf	1	5.59E-03	6.26E-03	1.33E-01
		6.59	MMcf	2,241.20	hr	PM _{filterable}	1.90	lb/MMcf	1	5.59E-03	6.26E-03	1.33E-01
		6.59	MMcf	2,241.20	hr	PM _{cond}	5.70	lb/MMcf	1	1.68E-02	1.88E-02	4.00E-01
		6.59	MMcf	2,241.20	hr	SO ₂	0.60	lb/MMcf	1	1.76E-03	1.98E-03	4.21E-02
EU-25 Boiler #3 - Concourse B (3.0 MMBtu/hr)	Natural Gas	6.59	MMcf	2,241.20	hr	VOC	5.50	lb/MMcf	1	1.62E-02	1.81E-02	3.86E-01
		6.59	MMcf	2,241.20	hr	NO _x	50.00	lb/MMcf	1	1.47E-01	1.65E-01	3.51E+00
		6.59	MMcf	2,241.20	hr	CO	84.00	lb/MMcf	1	2.47E-01	2.77E-01	5.89E+00
		6.59	MMcf	2,241.20	hr	PM _{2.5}	1.90	lb/MMcf	1	5.59E-03	6.26E-03	1.33E-01
		6.59	MMcf	2,241.20	hr	PM ₁₀	1.90	lb/MMcf	1	5.59E-03	6.26E-03	1.33E-01
		6.59	MMcf	2,241.20	hr	PM _{filterable}	1.90	lb/MMcf	1	5.59E-03	6.26E-03	1.33E-01
		6.59	MMcf	2,241.20	hr	PM _{cond}	5.70	lb/MMcf	1	1.68E-02	1.88E-02	4.00E-01
		6.59	MMcf	2,241.20	hr	SO ₂	0.60	lb/MMcf	1	1.76E-03	1.98E-03	4.21E-02
EU-26 Boiler #4 - Concourse B (3.0 MMBtu/hr)	Natural Gas	6.59	MMcf	2,241.20	hr	VOC	5.50	lb/MMcf	1	1.62E-02	1.81E-02	3.86E-01
		6.59	MMcf	2,241.20	hr	NO _x	50.00	lb/MMcf	1	1.47E-01	1.65E-01	3.51E+00
		6.59	MMcf	2,241.20	hr	CO	84.00	lb/MMcf	1	2.47E-01	2.77E-01	5.89E+00
		6.59	MMcf	2,241.20	hr	PM _{2.5}	1.90	lb/MMcf	1	5.59E-03	6.26E-03	1.33E-01
		6.59	MMcf	2,241.20	hr	PM ₁₀	1.90	lb/MMcf	1	5.59E-03	6.26E-03	1.33E-01
		6.59	MMcf	2,241.20	hr	PM _{filterable}	1.90	lb/MMcf	1	5.59E-03	6.26E-03	1.33E-01
		6.59	MMcf	2,241.20	hr	PM _{cond}	5.70	lb/MMcf	1	1.68E-02	1.88E-02	4.00E-01
		6.59	MMcf	2,241.20	hr	SO ₂	0.60	lb/MMcf	1	1.76E-03	1.98E-03	4.21E-02
EU-27 ARFF Building (#105) Boiler (1.0 MMBtu/hr)	Natural Gas	1.10	MMcf	1,123.92	hr	VOC	5.50	lb/MMcf	1	5.39E-03	3.03E-03	1.29E-01
		1.10	MMcf	1,123.92	hr	NO _x	50.00	lb/MMcf	1	4.90E-02	2.75E-02	1.17E+00
		1.10	MMcf	1,123.92	hr	CO	84.00	lb/MMcf	1	8.24E-02	4.63E-02	1.97E+00
		1.10	MMcf	1,123.92	hr	PM _{2.5}	1.90	lb/MMcf	1	1.86E-03	1.05E-03	4.45E-02
		1.10	MMcf	1,123.92	hr	PM ₁₀	1.90	lb/MMcf	1	1.86E-03	1.05E-03	4.45E-02
		1.10	MMcf	1,123.92	hr	PM _{filterable}	1.90	lb/MMcf	1	1.86E-03	1.05E-03	4.45E-02
		1.10	MMcf	1,123.92	hr	PM _{cond}	5.70	lb/MMcf	1	5.59E-03	3.14E-03	1.34E-01
		1.10	MMcf	1,123.92	hr	SO ₂	0.60	lb/MMcf	1	5.88E-04	3.31E-04	1.41E-02
EU-4 Standby Generator Pier D Front of Terminal (505 kW)	Diesel	251.37	MMBtu	49.60	hr	VOC**	0.08	lb/MMBtu	1	4.15E-01	1.03E-02	3.22E-01
		251.37	MMBtu	49.60	hr	NO _x	3.20	lb/MMBtu	1	1.62E+01	4.02E-01	1.26E+01
		251.37	MMBtu	49.60	hr	CO	0.85	lb/MMBtu	1	4.31E+00	1.07E-01	3.34E+00
		251.37	MMBtu	49.60	hr	PM _{2.5}	0.05	lb/MMBtu	1	2.43E-01	6.02E-03	1.88E-01
		251.37	MMBtu	49.60	hr	PM ₁₀	0.06	lb/MMBtu	1	2.90E-01	7.20E-03	2.25E-01
		251.37	MMBtu	49.60	hr	PM _{filterable}	0.06	lb/MMBtu	1	3.14E-01	7.79E-03	2.44E-01
		251.37	MMBtu	49.60	hr	PM _{cond}	0.01	lb/MMBtu	1	3.90E-02	9.68E-04	3.02E-02
		251.37	MMBtu	49.60	hr	SO ₂	1.52E-03	lb/MMBtu	1	7.68E-03	1.90E-04	5.95E-03
EU-5 Standby Generator Daily Parking Garage (750 kW)	Diesel	331.18	MMBtu	44.00	hr	VOC**	0.08	lb/MMBtu	1	6.16E-01	1.36E-02	4.24E-01
		331.18	MMBtu	44.00	hr	NO _x	3.20	lb/MMBtu	1	2.41E+01	5.30E-01	1.66E+01
		331.18	MMBtu	44.00	hr	CO	0.85	lb/MMBtu	1	6.40E+00	1.41E-01	4.40E+00
		331.18	MMBtu	44.00	hr	PM _{2.5}	0.05	lb/MMBtu	1	3.61E-01	7.93E-03	2.48E-01
		331.18	MMBtu	44.00	hr	PM ₁₀	0.06	lb/MMBtu	1	4.31E-01	9.49E-03	2.97E-01
		331.18	MMBtu	44.00	hr	PM _{filterable}	0.06	lb/MMBtu	1	4.67E-01	1.03E-02	3.21E-01
		331.18	MMBtu	44.00	hr	PM _{cond}	0.01	lb/MMBtu	1	5.80E-02	1.28E-03	3.98E-02
		331.18	MMBtu	44.00	hr	SO ₂	1.52E-03	lb/MMBtu	1	1.14E-02	2.51E-04	7.84E-03
					Lead	-	lb/MMBtu	5	-	-	-	

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Source Description and Location	Source Process Material	Annual Process Throughput		Annual Process Duration		Criteria Pollutant	Emission Factors			Actual Emission Estimates		
		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day
EU-6 Standby Generator Pier A (900 kW)	Diesel	379.35	MMBtu	42.00	hr	VOC**	0.08	lb/MMBtu	1	7.40E-01	1.55E-02	4.85E-01
		379.35	MMBtu	42.00	hr	NO _x	3.20	lb/MMBtu	1	2.89E+01	6.07E-01	1.90E+01
		379.35	MMBtu	42.00	hr	CO	0.85	lb/MMBtu	1	7.68E+00	1.61E-01	5.04E+00
		379.35	MMBtu	42.00	hr	PM _{2.5}	0.05	lb/MMBtu	1	4.33E-01	9.09E-03	2.84E-01
		379.35	MMBtu	42.00	hr	PM ₁₀	0.06	lb/MMBtu	1	5.18E-01	1.08E-02	3.40E-01
		379.35	MMBtu	42.00	hr	PM _{filterable}	0.06	lb/MMBtu	1	5.60E-01	1.18E-02	3.67E-01
		379.35	MMBtu	42.00	hr	PM _{cond}	0.01	lb/MMBtu	1	6.95E-02	1.46E-03	4.56E-02
		379.35	MMBtu	42.00	hr	SO ₂	1.52E-03	lb/MMBtu	1	1.37E-02	2.87E-04	8.98E-03
		379.35	MMBtu	42.00	hr	Lead	-	lb/MMBtu	5	-	-	-
EU-10 Standby Generator International Terminal Roof (600 kW)	Diesel	349.24	MMBtu	58.00	hr	VOC**	0.08	lb/MMBtu	1	4.93E-01	1.43E-02	4.47E-01
		349.24	MMBtu	58.00	hr	NO _x	3.20	lb/MMBtu	1	1.93E+01	5.59E-01	1.75E+01
		349.24	MMBtu	58.00	hr	CO	0.85	lb/MMBtu	1	5.12E+00	1.48E-01	4.64E+00
		349.24	MMBtu	58.00	hr	PM _{2.5}	0.05	lb/MMBtu	1	2.88E-01	8.36E-03	2.61E-01
		349.24	MMBtu	58.00	hr	PM ₁₀	0.06	lb/MMBtu	1	3.45E-01	1.00E-02	3.13E-01
		349.24	MMBtu	58.00	hr	PM _{filterable}	0.06	lb/MMBtu	1	3.73E-01	1.08E-02	3.38E-01
		349.24	MMBtu	58.00	hr	PM _{cond}	0.01	lb/MMBtu	1	4.64E-02	1.34E-03	4.20E-02
		349.24	MMBtu	58.00	hr	SO ₂	1.52E-03	lb/MMBtu	1	9.12E-03	2.65E-04	8.27E-03
		349.24	MMBtu	58.00	hr	Lead	-	lb/MMBtu	5	-	-	-
EU-11 Standby Generator MAC Building (410 kW)	Diesel	175.28	MMBtu	42.60	hr	VOC**	0.33	lb/MMBtu	1	1.35E+00	2.87E-02	8.97E-01
		175.28	MMBtu	42.60	hr	NO _x	4.41	lb/MMBtu	1	1.81E+01	3.87E-01	1.21E+01
		175.28	MMBtu	42.60	hr	CO	0.95	lb/MMBtu	1	3.91E+00	8.33E-02	2.60E+00
		175.28	MMBtu	42.60	hr	PM _{2.5}	0.05	lb/MMBtu	2	1.97E-01	4.20E-03	1.31E-01
		175.28	MMBtu	42.60	hr	PM ₁₀	0.31	lb/MMBtu	1	1.28E+00	2.72E-02	8.49E-01
		175.28	MMBtu	42.60	hr	PM _{filterable}	0.06	lb/MMBtu	2	2.55E-01	5.43E-03	1.70E-01
		175.28	MMBtu	42.60	hr	PM _{cond}	0.01	lb/MMBtu	2	3.17E-02	6.75E-04	2.11E-02
		175.28	MMBtu	42.60	hr	SO ₂	1.52E-03	lb/MMBtu	2	6.23E-03	1.33E-04	4.15E-03
		175.28	MMBtu	42.60	hr	Lead	-	lb/MMBtu	5	-	-	-
EU-12 Standby Generator Aircraft Lighting Vault (600 kW)	Diesel	746.66	MMBtu	124.00	hr	VOC**	0.08	lb/MMBtu	1	4.93E-01	3.06E-02	8.49E-01
		746.66	MMBtu	124.00	hr	NO _x	3.20	lb/MMBtu	1	1.93E+01	1.19E+00	3.32E+01
		746.66	MMBtu	124.00	hr	CO	0.85	lb/MMBtu	1	5.12E+00	3.17E-01	8.81E+00
		746.66	MMBtu	124.00	hr	PM _{2.5}	0.05	lb/MMBtu	1	2.88E-01	1.79E-02	4.97E-01
		746.66	MMBtu	124.00	hr	PM ₁₀	0.06	lb/MMBtu	1	3.45E-01	2.14E-02	5.94E-01
		746.66	MMBtu	124.00	hr	PM _{filterable}	0.06	lb/MMBtu	1	3.73E-01	2.31E-02	6.43E-01
		746.66	MMBtu	124.00	hr	PM _{cond}	0.01	lb/MMBtu	1	4.64E-02	2.87E-03	7.99E-02
		746.66	MMBtu	124.00	hr	SO ₂	1.52E-03	lb/MMBtu	1	9.12E-03	5.66E-04	1.57E-02
		746.66	MMBtu	124.00	hr	Lead	-	lb/MMBtu	5	-	-	-
EU-13 Standby Generator Hourly Parking Garage (600 kW)	Diesel	225.20	MMBtu	37.40	hr	VOC**	0.08	lb/MMBtu	1	4.93E-01	9.22E-03	2.88E-01
		225.20	MMBtu	37.40	hr	NO _x	3.20	lb/MMBtu	1	1.93E+01	3.60E-01	1.13E+01
		225.20	MMBtu	37.40	hr	CO	0.85	lb/MMBtu	1	5.12E+00	9.57E-02	2.99E+00
		225.20	MMBtu	37.40	hr	PM _{2.5}	0.05	lb/MMBtu	1	2.88E-01	5.39E-03	1.69E-01
		225.20	MMBtu	37.40	hr	PM ₁₀	0.06	lb/MMBtu	1	3.45E-01	6.45E-03	2.02E-01
		225.20	MMBtu	37.40	hr	PM _{filterable}	0.06	lb/MMBtu	1	3.73E-01	6.98E-03	2.18E-01
		225.20	MMBtu	37.40	hr	PM _{cond}	0.01	lb/MMBtu	1	4.64E-02	8.67E-04	2.71E-02
		225.20	MMBtu	37.40	hr	SO ₂	1.52E-03	lb/MMBtu	1	9.12E-03	1.71E-04	5.33E-03
		225.20	MMBtu	37.40	hr	Lead	-	lb/MMBtu	5	-	-	-
EU-14 Standby Generator Pier A Triturator (500 kW)	Diesel	108.89	MMBtu	21.70	hr	VOC**	0.08	lb/MMBtu	1	4.11E-01	4.46E-03	1.39E-01
		108.89	MMBtu	21.70	hr	NO _x	3.20	lb/MMBtu	1	1.61E+01	1.74E-01	5.44E+00
		108.89	MMBtu	21.70	hr	CO	0.85	lb/MMBtu	1	4.27E+00	4.63E-02	1.45E+00
		108.89	MMBtu	21.70	hr	PM _{2.5}	0.05	lb/MMBtu	1	2.40E-01	2.61E-03	8.15E-02
		108.89	MMBtu	21.70	hr	PM ₁₀	0.06	lb/MMBtu	1	2.88E-01	3.12E-03	9.75E-02
		108.89	MMBtu	21.70	hr	PM _{filterable}	0.06	lb/MMBtu	1	3.11E-01	3.38E-03	1.05E-01
		108.89	MMBtu	21.70	hr	PM _{cond}	0.01	lb/MMBtu	1	3.86E-02	4.19E-04	1.31E-02
		108.89	MMBtu	21.70	hr	SO ₂	1.52E-03	lb/MMBtu	1	7.60E-03	8.25E-05	2.58E-03
		108.89	MMBtu	21.70	hr	Lead	-	lb/MMBtu	5	-	-	-

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		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day
EU-15 Standby Generator Intl. Terminal LL (900 kW)	Diesel	325.16	MMBtu	36.00	hr	VOC**	0.08	lb/MMBtu	1	7.40E-01	1.33E-02	4.16E-01
		325.16	MMBtu	36.00	hr	NO _x	3.20	lb/MMBtu	1	2.89E+01	5.20E-01	1.63E+01
		325.16	MMBtu	36.00	hr	CO	0.85	lb/MMBtu	1	7.68E+00	1.38E-01	4.32E+00
		325.16	MMBtu	36.00	hr	PM _{2.5}	0.05	lb/MMBtu	1	4.33E-01	7.79E-03	2.43E-01
		325.16	MMBtu	36.00	hr	PM ₁₀	0.06	lb/MMBtu	1	5.18E-01	9.32E-03	2.91E-01
		325.16	MMBtu	36.00	hr	PM _{filterable}	0.06	lb/MMBtu	1	5.60E-01	1.01E-02	3.15E-01
		325.16	MMBtu	36.00	hr	PM _{cond}	0.01	lb/MMBtu	1	6.95E-02	1.25E-03	3.91E-02
		325.16	MMBtu	36.00	hr	SO ₂	1.52E-03	lb/MMBtu	1	1.37E-02	2.46E-04	7.70E-03
EU-16 Standby Generator Gate C1 (2000 kW)	Diesel	939.14	MMBtu	46.79	hr	VOC**	0.08	lb/MMBtu	1	1.64E+00	3.85E-02	1.20E+00
		939.14	MMBtu	46.79	hr	NO _x	3.20	lb/MMBtu	1	6.42E+01	1.50E+00	4.70E+01
		939.14	MMBtu	46.79	hr	CO	0.85	lb/MMBtu	1	1.71E+01	3.99E-01	1.25E+01
		939.14	MMBtu	46.79	hr	PM _{2.5}	0.05	lb/MMBtu	1	9.61E-01	2.25E-02	7.03E-01
		939.14	MMBtu	46.79	hr	PM ₁₀	0.06	lb/MMBtu	1	1.15E+00	2.69E-02	8.41E-01
		939.14	MMBtu	46.79	hr	PM _{filterable}	0.06	lb/MMBtu	1	1.24E+00	2.91E-02	9.10E-01
		939.14	MMBtu	46.79	hr	PM _{cond}	0.01	lb/MMBtu	1	1.55E-01	3.62E-03	1.13E-01
		939.14	MMBtu	46.79	hr	SO ₂	1.52E-03	lb/MMBtu	1	3.04E-02	7.11E-04	2.22E-02
EU-17 Standby Generator Mobile CUP (2000 kW)	Diesel	120.43	MMBtu	6.00	hr	VOC**	0.08	lb/MMBtu	1	1.64E+00	4.93E-03	1.64E+00
		120.43	MMBtu	6.00	hr	NO _x	3.20	lb/MMBtu	1	6.42E+01	1.93E-01	6.42E+01
		120.43	MMBtu	6.00	hr	CO	0.85	lb/MMBtu	1	1.71E+01	5.12E-02	1.71E+01
		120.43	MMBtu	6.00	hr	PM _{2.5}	0.05	lb/MMBtu	1	9.61E-01	2.88E-03	9.61E-01
		120.43	MMBtu	6.00	hr	PM ₁₀	0.06	lb/MMBtu	1	1.15E+00	3.45E-03	1.15E+00
		120.43	MMBtu	6.00	hr	PM _{filterable}	0.06	lb/MMBtu	1	1.24E+00	3.73E-03	1.24E+00
		120.43	MMBtu	6.00	hr	PM _{cond}	0.01	lb/MMBtu	1	1.55E-01	4.64E-04	1.55E-01
		120.43	MMBtu	6.00	hr	SO ₂	1.52E-03	lb/MMBtu	1	3.04E-02	9.12E-05	3.04E-02
EU-18 Standby Generator Gate C2 (900 kW)	Diesel	338.80	MMBtu	37.51	hr	VOC	0.08	lb/MMBtu	1	7.40E-01	1.39E-02	4.34E-01
		338.80	MMBtu	37.51	hr	NO _x	3.20	lb/MMBtu	1	2.89E+01	5.42E-01	1.69E+01
		338.80	MMBtu	37.51	hr	CO	0.85	lb/MMBtu	1	7.68E+00	1.44E-01	4.50E+00
		338.80	MMBtu	37.51	hr	PM _{2.5}	0.05	lb/MMBtu	1	4.33E-01	8.11E-03	2.54E-01
		338.80	MMBtu	37.51	hr	PM ₁₀	0.06	lb/MMBtu	1	5.18E-01	9.71E-03	3.03E-01
		338.80	MMBtu	37.51	hr	PM _{filterable}	0.06	lb/MMBtu	1	5.60E-01	1.05E-02	3.28E-01
		338.80	MMBtu	37.51	hr	PM _{cond}	0.01	lb/MMBtu	1	6.95E-02	1.30E-03	4.08E-02
		338.80	MMBtu	37.51	hr	SO ₂	1.52E-03	lb/MMBtu	1	1.37E-02	2.57E-04	8.02E-03
EU-7 Gasoline Storage Tank Field Maintenance Building 116 (8000 gal)	Gasoline	142,366.34	gal	-	-	VOC	-	-	3	-	6.79E-01	3.72E+00
		142,366.34	gal	-	-	NO _x	-	-	-	-	-	-
		142,366.34	gal	-	-	CO	-	-	-	-	-	-
		142,366.34	gal	-	-	PM _{2.5}	-	-	-	-	-	-
		142,366.34	gal	-	-	PM ₁₀	-	-	-	-	-	-
		142,366.34	gal	-	-	PM _{filterable}	-	-	-	-	-	-
		142,366.34	gal	-	-	PM _{cond}	-	-	-	-	-	-
		142,366.34	gal	-	-	SO ₂	-	-	-	-	-	-
EU-8 Training Fires	Jet-A (JP-8)	28,837.50	gal	-	-	VOC	0.58	lb/gal JP-8	4	-	8.43E+00	2.81E+03
		28,837.50	gal	-	-	NO _x	0.01	lb/gal JP-8	4	-	1.44E-01	4.81E+01
		28,837.50	gal	-	-	CO	0.30	lb/gal JP-8	4	-	4.27E+00	1.42E+03
		28,837.50	gal	-	-	PM _{2.5}	-	lb/gal JP-8	4	-	2.80E+00	9.32E+02
		28,837.50	gal	-	-	PM ₁₀	0.19	lb/gal JP-8	4	-	2.80E+00	9.32E+02
		28,837.50	gal	-	-	PM _{filterable}	0.19	lb/gal JP-8	4	-	2.80E+00	9.32E+02
		28,837.50	gal	-	-	PM _{cond}	-	lb/gal JP-8	4	-	-	-
		28,837.50	gal	-	-	SO ₂	0.01	lb/gal JP-8	4	-	9.80E-02	3.27E+01
		28,837.50	gal	-	-	Lead	-	lb/gal JP-8	5	-	-	-

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		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day
EU-28 LSC Boiler (1.969 MMBtu/hr)	Natural Gas	2.49	MMcf	1,290.91	hr	VOC	5.50	lb/MMcf	1	1.06E-02	6.85E-03	2.54E-01
		2.49	MMcf	1,290.91	hr	NO _x	50.00	lb/MMcf	1	9.65E-02	6.23E-02	2.31E+00
		2.49	MMcf	1,290.91	hr	CO	84.00	lb/MMcf	1	1.62E-01	1.05E-01	3.88E+00
		2.49	MMcf	1,290.91	hr	PM _{2.5}	1.90	lb/MMcf	1	3.67E-03	2.37E-03	8.77E-02
		2.49	MMcf	1,290.91	hr	PM ₁₀	1.90	lb/MMcf	1	3.67E-03	2.37E-03	8.77E-02
		2.49	MMcf	1,290.91	hr	PM _{filterable}	1.90	lb/MMcf	1	3.67E-03	2.37E-03	8.77E-02
		2.49	MMcf	1,290.91	hr	PM _{cond}	5.70	lb/MMcf	1	1.10E-02	7.10E-03	2.63E-01
		2.49	MMcf	1,290.91	hr	SO ₂	0.60	lb/MMcf	1	1.16E-03	7.48E-04	2.77E-02
		2.49	MMcf	1,290.91	hr	Lead	5.00E-04	lb/MMcf	1	9.65E-07	6.23E-07	2.31E-05
EU-29 Standby Generator OMU (750 kW)	Diesel	60.36	MMBtu	8.02	hr	VOC	0.08	lb/MMBtu	1	6.16E-01	2.47E-03	8.24E-01
		60.36	MMBtu	8.02	hr	NO _x	3.20	lb/MMBtu	1	2.41E+01	9.66E-02	3.22E+01
		60.36	MMBtu	8.02	hr	CO	0.85	lb/MMBtu	1	6.40E+00	2.57E-02	8.55E+00
		60.36	MMBtu	8.02	hr	PM _{2.5}	0.05	lb/MMBtu	1	3.61E-01	1.45E-03	4.82E-01
		60.36	MMBtu	8.02	hr	PM ₁₀	0.06	lb/MMBtu	1	4.31E-01	1.73E-03	5.76E-01
		60.36	MMBtu	8.02	hr	PM _{filterable}	0.06	lb/MMBtu	1	4.67E-01	1.87E-03	6.24E-01
		60.36	MMBtu	8.02	hr	PM _{cond}	0.01	lb/MMBtu	1	5.80E-02	2.32E-04	7.75E-02
		60.36	MMBtu	8.02	hr	SO ₂	1.52E-03	lb/MMBtu	1	1.14E-02	4.57E-05	1.52E-02
						Lead	-	lb/MMBtu	5	-	-	-
EU-30 ARFF Building Heater (1.65 MMBtu/hr)	Natural Gas	1.82	MMcf	1,123.92	hr	VOC	5.50	lb/MMcf	1	8.90E-03	5.00E-03	2.13E-01
		1.82	MMcf	1,123.92	hr	NO _x	50.00	lb/MMcf	1	8.09E-02	4.55E-02	1.93E+00
		1.82	MMcf	1,123.92	hr	CO	84.00	lb/MMcf	1	1.36E-01	7.64E-02	3.25E+00
		1.82	MMcf	1,123.92	hr	PM _{2.5}	1.90	lb/MMcf	1	3.07E-03	1.73E-03	7.35E-02
		1.82	MMcf	1,123.92	hr	PM ₁₀	1.90	lb/MMcf	1	3.07E-03	1.73E-03	7.35E-02
		1.82	MMcf	1,123.92	hr	PM _{filterable}	1.90	lb/MMcf	1	3.07E-03	1.73E-03	7.35E-02
		1.82	MMcf	1,123.92	hr	PM _{cond}	5.70	lb/MMcf	1	9.22E-03	5.18E-03	2.20E-01
		1.82	MMcf	1,123.92	hr	SO ₂	0.60	lb/MMcf	1	9.71E-04	5.45E-04	2.32E-02
		1.82	MMcf	1,123.92	hr	Lead	5.00E-04	lb/MMcf	1	8.09E-07	4.55E-07	1.93E-05
EU-32 Temporary Generator (1000 kW)	Diesel	0.00	MMBtu	0.00	hr	VOC	0.08	lb/MMBtu	1	-	-	-
		0.00	MMBtu	0.00	hr	NO _x	3.20	lb/MMBtu	1	-	-	-
		0.00	MMBtu	0.00	hr	CO	0.85	lb/MMBtu	1	-	-	-
		0.00	MMBtu	0.00	hr	PM _{2.5}	0.05	lb/MMBtu	1	-	-	-
		0.00	MMBtu	0.00	hr	PM ₁₀	0.06	lb/MMBtu	1	-	-	-
		0.00	MMBtu	0.00	hr	PM _{filterable}	0.06	lb/MMBtu	1	-	-	-
		0.00	MMBtu	0.00	hr	PM _{cond}	0.01	lb/MMBtu	1	-	-	-
		0.00	MMBtu	0.00	hr	SO ₂	1.52E-03	lb/MMBtu	1	-	-	-
						Lead	-	lb/MMBtu	5	-	-	-
D-Pier Boiler 1 (3.00 MMBtu/hr)	Natural Gas	3.51	MMcf	1,193.46	hr	VOC	5.50	lb/MMcf	1	1.62E-02	9.65E-03	3.86E-01
		3.51	MMcf	1,193.46	hr	NO _x	100.00	lb/MMcf	1	2.94E-01	1.76E-01	7.02E+00
		3.51	MMcf	1,193.46	hr	CO	84.00	lb/MMcf	1	2.47E-01	1.47E-01	5.90E+00
		3.51	MMcf	1,193.46	hr	PM _{2.5}	1.90	lb/MMcf	1	5.59E-03	3.33E-03	1.33E-01
		3.51	MMcf	1,193.46	hr	PM ₁₀	1.90	lb/MMcf	1	5.59E-03	3.33E-03	1.33E-01
		3.51	MMcf	1,193.46	hr	PM _{filterable}	1.90	lb/MMcf	1	5.59E-03	3.33E-03	1.33E-01
		3.51	MMcf	1,193.46	hr	PM _{cond}	5.70	lb/MMcf	1	1.68E-02	1.00E-02	4.00E-01
		3.51	MMcf	1,193.46	hr	SO ₂	0.60	lb/MMcf	1	1.76E-03	1.05E-03	4.21E-02
		3.51	MMcf	1,193.46	hr	Lead	5.00E-04	lb/MMcf	1	1.47E-06	8.78E-07	3.51E-05

**Baltimore Washington International (BWI) Thurgood Marshall Airport
2021 Annual Emission Certification Report
Criteria Pollutants**

Source Description and Location	Source Process Material	Annual Process Throughput		Annual Process Duration		Criteria Pollutant	Emission Factors			Actual Emission Estimates		
		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day
D-Pier Boiler 2 (3.00 MMBtu/hr)	Natural Gas	3.51	MMcf	1,193.46	hr	VOC	5.50	lb/MMcf	1	1.62E-02	9.65E-03	3.86E-01
		3.51	MMcf	1,193.46	hr	NO _x	100.00	lb/MMcf	1	2.94E-01	1.76E-01	7.02E+00
		3.51	MMcf	1,193.46	hr	CO	84.00	lb/MMcf	1	2.47E-01	1.47E-01	5.90E+00
		3.51	MMcf	1,193.46	hr	PM _{2.5}	1.90	lb/MMcf	1	5.59E-03	3.33E-03	1.33E-01
		3.51	MMcf	1,193.46	hr	PM ₁₀	1.90	lb/MMcf	1	5.59E-03	3.33E-03	1.33E-01
		3.51	MMcf	1,193.46	hr	PM _{filterable}	1.90	lb/MMcf	1	5.59E-03	3.33E-03	1.33E-01
		3.51	MMcf	1,193.46	hr	PM _{cond}	5.70	lb/MMcf	1	1.68E-02	1.00E-02	4.00E-01
		3.51	MMcf	1,193.46	hr	SO ₂	0.60	lb/MMcf	1	1.76E-03	1.05E-03	4.21E-02
		3.51	MMcf	1,193.46	hr	Lead	5.00E-04	lb/MMcf	1	1.47E-06	8.78E-07	3.51E-05

Notes:

Emission Factor Sources

- 1 - AP-42 Chapter 1.4 Natural Gas combustion (Tables 1.4-1, 1.4-2)
AP-42 Chapter 1.3 Fuel oil combustion (Tables 1.3-1, 1.3-2, 1.3-3, 1.3-5, 1.3-10)
AP-42 Chapter 3.3 Gasoline and diesel industrial engines (Tables 3.3-1)
AP-42 Chapter 3.4 Large stationary diesel and all stationary dual-fuel engines (Table 3.4-2)
 - 2 - Used AP-42 Chapter 3.4 Large stationary diesel and all stationary dual-fuel engines (Table 3.4-2)
 - 3 - AP-42 Chapter 7.1 Organic Liquid Storage Tanks
 - 4 - Air Force Center for Engineering and the Environment, September 2009
PM_{2.5} and PM (Condensable) and PM (filterable) emission factors not available
BWI Airport uses Jet-A, a commercial designation equivalent to JP-8 (density = 7.0 lb/gal)
 - 5 - No emission factor published in AP-42 Chapters 1 and 3, leaded motor and aviation fuels are not used
 - 6 - Test data from February 6-8, 2018 stack test.
 - * - Sum of condensable and filterable particulates
 - ** - Non-methane TOC = 91% of total TOC
 - *** - Non-methane TOC = 91% of total TOC. TOC taken as sum of exhaust and crankcase values
- For boilers, emissions are based on reported fuel usage
Fuel consumption of the boilers is based on diesel average heating value of 140,000 Btu/gal (AP-42)
Conversion factors: 1 scf = 7.48 gal
Sulfur content of diesel: 0.0015%

Baltimore Washington International (BWI) Thurgood Marshall Airport
 2021 Annual Emission Certification Report
 Hazardous Air Pollutants

Source Description and Location	Source Process Material	Annual Process Throughput		Annual Process Duration		HAPS	Emission Factors			Actual Emission Estimates		
		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day
EU-1 CUP Boiler #1 (55 MMBtu/hr)	Natural Gas	45.94	MMcf	851.93	hr	Acetaldehyde	-	lb/MMcf	-	-	-	-
		45.94	MMcf	851.93	hr	Acrolein	-	lb/MMcf	-	-	-	-
		45.94	MMcf	851.93	hr	Arsenic	2.00E-04	lb/MMcf	1	1.08E-05	4.59E-06	2.55E-04
		45.94	MMcf	851.93	hr	Barium	4.40E-03	lb/MMcf	1	2.37E-04	1.01E-04	5.61E-03
		45.94	MMcf	851.93	hr	Benzene	2.10E-03	lb/MMcf	1	1.13E-04	4.82E-05	2.68E-03
		45.94	MMcf	851.93	hr	Beryllium	1.20E-05	lb/MMcf	1	6.47E-07	2.76E-07	1.53E-05
		45.94	MMcf	851.93	hr	Cadmium	1.10E-03	lb/MMcf	1	5.93E-05	2.53E-05	1.40E-03
		45.94	MMcf	851.93	hr	Chromium	1.40E-03	lb/MMcf	1	7.55E-05	3.22E-05	1.79E-03
		45.94	MMcf	851.93	hr	Cobalt	8.40E-05	lb/MMcf	1	4.53E-06	1.93E-06	1.07E-04
		45.94	MMcf	851.93	hr	Dichlorobenzene	1.20E-03	lb/MMcf	1	6.47E-05	2.76E-05	1.53E-03
		45.94	MMcf	851.93	hr	Formaldehyde	7.50E-02	lb/MMcf	1	4.04E-03	1.72E-03	9.57E-02
		45.94	MMcf	851.93	hr	Hexane	1.80E+00	lb/MMcf	1	9.71E-02	4.13E-02	2.30E+00
		45.94	MMcf	851.93	hr	Manganese	3.80E-04	lb/MMcf	1	2.05E-05	8.73E-06	4.85E-04
		45.94	MMcf	851.93	hr	Mercury	2.60E-04	lb/MMcf	1	1.40E-05	5.97E-06	3.32E-04
		45.94	MMcf	851.93	hr	Naphthalene	6.10E-04	lb/MMcf	1	3.29E-05	1.40E-05	7.78E-04
		45.94	MMcf	851.93	hr	Nickel	2.10E-03	lb/MMcf	1	1.13E-04	4.82E-05	2.68E-03
		45.94	MMcf	851.93	hr	Selenium	2.40E-05	lb/MMcf	1	1.29E-06	5.51E-07	3.06E-05
		45.94	MMcf	851.93	hr	Toluene	3.40E-03	lb/MMcf	1	1.83E-04	7.81E-05	4.34E-03
	45.94	MMcf	851.93	hr	Xylene	-	lb/MMcf	-	-	-	-	-
	45.94	MMcf	851.93	hr	POM	8.82E-05	lb/MMcf	1	4.76E-06	2.03E-06	1.13E-04	
	0.96	1000 gal	2.45	hr	Acetaldehyde	-	lb/1000 gal	-	-	-	-	-
	0.96	1000 gal	2.45	hr	Acrolein	-	lb/1000 gal	-	-	-	-	-
	134.66	MMBtu	2.45	hr	Arsenic	4.00E-06	lb/MMBtu	1	2.20E-04	2.69E-07	5.39E-04	
	134.66	MMBtu	2.45	hr	Barium	-	lb/MMBtu	-	-	-	-	-
	0.96	1000 gal	2.45	hr	Benzene	2.14E-04	lb/1000 gal	1	8.41E-05	1.03E-07	2.06E-04	
	134.66	MMBtu	2.45	hr	Beryllium	3.00E-06	lb/MMBtu	1	1.65E-04	2.02E-07	4.04E-04	
	134.66	MMBtu	2.45	hr	Cadmium	3.00E-06	lb/MMBtu	1	1.65E-04	2.02E-07	4.04E-04	
	134.66	MMBtu	2.45	hr	Chromium	3.00E-06	lb/MMBtu	1	1.65E-04	2.02E-07	4.04E-04	
	134.66	MMBtu	2.45	hr	Cobalt	-	lb/MMBtu	-	-	-	-	-
	134.66	MMBtu	2.45	hr	Dichlorobenzene	-	lb/MMBtu	-	-	-	-	-
	0.96	1000 gal	2.45	hr	Formaldehyde	3.30E-02	lb/1000 gal	1	1.30E-02	1.59E-05	3.17E-02	
	0.96	1000 gal	2.45	hr	Hexane	-	lb/1000 gal	-	-	-	-	-
	134.66	MMBtu	2.45	hr	Manganese	6.00E-06	lb/MMBtu	1	3.30E-04	4.04E-07	8.08E-04	
134.66	MMBtu	2.45	hr	Mercury	3.00E-06	lb/MMBtu	1	1.65E-04	2.02E-07	4.04E-04		
0.96	1000 gal	2.45	hr	Naphthalene	1.13E-03	lb/1000 gal	1	4.44E-04	5.43E-07	1.09E-03		
134.66	MMBtu	2.45	hr	Nickel	3.00E-06	lb/MMBtu	1	1.65E-04	2.02E-07	4.04E-04		
134.66	MMBtu	2.45	hr	Selenium	1.50E-05	lb/MMBtu	1	8.25E-04	1.01E-06	2.02E-03		
0.96	1000 gal	2.45	hr	Toluene	6.20E-03	lb/1000 gal	1	2.44E-03	2.98E-06	5.96E-03		
0.96	1000 gal	2.45	hr	Xylene	1.09E-04	lb/1000 gal	1	4.28E-05	5.24E-08	1.05E-04		
0.96	1000 gal	2.45	hr	POM	3.30E-03	lb/1000 gal	1	1.30E-03	1.59E-06	3.17E-03		

Baltimore Washington International (BWI) Thurgood Marshall Airport
 2021 Annual Emission Certification Report
 Hazardous Air Pollutants

Source Description and Location	Source Process Material	Annual Process Throughput		Annual Process Duration		HAPS	Emission Factors			Actual Emission Estimates		
		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day
EU-2 CUP Boiler #2 (55 MMBtu/hr)	Natural Gas	45.94	MMcf	851.93	hr	Acetaldehyde	-	lb/MMcf	-	-	-	-
		45.94	MMcf	851.93	hr	Acrolein	-	lb/MMcf	-	-	-	-
		45.94	MMcf	851.93	hr	Arsenic	2.00E-04	lb/MMcf	1	1.08E-05	4.59E-06	2.55E-04
		45.94	MMcf	851.93	hr	Barium	4.40E-03	lb/MMcf	1	2.37E-04	1.01E-04	5.61E-03
		45.94	MMcf	851.93	hr	Benzene	2.10E-03	lb/MMcf	1	1.13E-04	4.82E-05	2.68E-03
		45.94	MMcf	851.93	hr	Beryllium	1.20E-05	lb/MMcf	1	6.47E-07	2.76E-07	1.53E-05
		45.94	MMcf	851.93	hr	Cadmium	1.10E-03	lb/MMcf	1	5.93E-05	2.53E-05	1.40E-03
		45.94	MMcf	851.93	hr	Chromium	1.40E-03	lb/MMcf	1	7.55E-05	3.22E-05	1.79E-03
		45.94	MMcf	851.93	hr	Cobalt	8.40E-05	lb/MMcf	1	4.53E-06	1.93E-06	1.07E-04
		45.94	MMcf	851.93	hr	Dichlorobenzene	1.20E-03	lb/MMcf	1	6.47E-05	2.76E-05	1.53E-03
		45.94	MMcf	851.93	hr	Formaldehyde	7.50E-02	lb/MMcf	1	4.04E-03	1.72E-03	9.57E-02
		45.94	MMcf	851.93	hr	Hexane	1.80E+00	lb/MMcf	1	9.71E-02	4.13E-02	2.30E+00
		45.94	MMcf	851.93	hr	Manganese	3.80E-04	lb/MMcf	1	2.05E-05	8.73E-06	4.85E-04
		45.94	MMcf	851.93	hr	Mercury	2.60E-04	lb/MMcf	1	1.40E-05	5.97E-06	3.32E-04
		45.94	MMcf	851.93	hr	Naphthalene	6.10E-04	lb/MMcf	1	3.29E-05	1.40E-05	7.78E-04
		45.94	MMcf	851.93	hr	Nickel	2.10E-03	lb/MMcf	1	1.13E-04	4.82E-05	2.68E-03
		45.94	MMcf	851.93	hr	Selenium	2.40E-05	lb/MMcf	1	1.29E-06	5.51E-07	3.06E-05
		45.94	MMcf	851.93	hr	Toluene	3.40E-03	lb/MMcf	1	1.83E-04	7.81E-05	4.34E-03
	45.94	MMcf	851.93	hr	Xylene	-	lb/MMcf	-	-	-	-	-
	45.94	MMcf	851.93	hr	POM	8.82E-05	lb/MMcf	1	4.76E-06	2.03E-06	1.13E-04	
	0.96	1000 gal	2.45	hr	Acetaldehyde	-	lb/1000 gal	-	-	-	-	-
	0.96	1000 gal	2.45	hr	Acrolein	-	lb/1000 gal	-	-	-	-	-
	134.66	MMBtu	2.45	hr	Arsenic	4.00E-06	lb/MMBtu	1	2.20E-04	2.69E-07	5.39E-04	
	134.66	MMBtu	2.45	hr	Barium	-	lb/MMBtu	-	-	-	-	-
	0.96	1000 gal	2.45	hr	Benzene	2.14E-04	lb/1000 gal	1	8.41E-05	1.03E-07	2.06E-04	
	134.66	MMBtu	2.45	hr	Beryllium	3.00E-06	lb/MMBtu	1	1.65E-04	2.02E-07	4.04E-04	
	134.66	MMBtu	2.45	hr	Cadmium	3.00E-06	lb/MMBtu	1	1.65E-04	2.02E-07	4.04E-04	
	134.66	MMBtu	2.45	hr	Chromium	3.00E-06	lb/MMBtu	1	1.65E-04	2.02E-07	4.04E-04	
	134.66	MMBtu	2.45	hr	Cobalt	-	lb/MMBtu	-	-	-	-	-
	134.66	MMBtu	2.45	hr	Dichlorobenzene	-	lb/MMBtu	-	-	-	-	-
	0.96	1000 gal	2.45	hr	Formaldehyde	3.30E-02	lb/1000 gal	1	1.30E-02	1.59E-05	3.17E-02	
	0.96	1000 gal	2.45	hr	Hexane	-	lb/1000 gal	-	-	-	-	-
134.66	MMBtu	2.45	hr	Manganese	6.00E-06	lb/MMBtu	1	3.30E-04	4.04E-07	8.08E-04		
134.66	MMBtu	2.45	hr	Mercury	3.00E-06	lb/MMBtu	1	1.65E-04	2.02E-07	4.04E-04		
0.96	1000 gal	2.45	hr	Naphthalene	1.13E-03	lb/1000 gal	1	4.44E-04	5.43E-07	1.09E-03		
134.66	MMBtu	2.45	hr	Nickel	3.00E-06	lb/MMBtu	1	1.65E-04	2.02E-07	4.04E-04		
134.66	MMBtu	2.45	hr	Selenium	1.50E-05	lb/MMBtu	1	8.25E-04	1.01E-06	2.02E-03		
0.96	1000 gal	2.45	hr	Toluene	6.20E-03	lb/1000 gal	1	2.44E-03	2.98E-06	5.96E-03		
0.96	1000 gal	2.45	hr	Xylene	1.09E-04	lb/1000 gal	1	4.28E-05	5.24E-08	1.05E-04		
0.96	1000 gal	2.45	hr	POM	3.30E-03	lb/1000 gal	1	1.30E-03	1.59E-06	3.17E-03		

Baltimore Washington International (BWI) Thurgood Marshall Airport
 2021 Annual Emission Certification Report
 Hazardous Air Pollutants

Source Description and Location	Source Process Material	Annual Process Throughput		Annual Process Duration		HAPS	Emission Factors			Actual Emission Estimates			
		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day	
EU-3 CUP Boiler #3 (25 MMBtu/hr)	Natural Gas	20.88	MMcf	851.93	hr	Acetaldehyde	-	lb/MMcf	-	-	-	-	
		20.88	MMcf	851.93	hr	Acrolein	-	lb/MMcf	-	-	-	-	
		20.88	MMcf	851.93	hr	Arsenic	2.00E-04	lb/MMcf	1	4.90E-06	2.09E-06	1.16E-04	
		20.88	MMcf	851.93	hr	Barium	4.40E-03	lb/MMcf	1	1.08E-04	4.59E-05	2.55E-03	
		20.88	MMcf	851.93	hr	Benzene	2.10E-03	lb/MMcf	1	5.15E-05	2.19E-05	1.22E-03	
		20.88	MMcf	851.93	hr	Beryllium	1.20E-05	lb/MMcf	1	2.94E-07	1.25E-07	6.96E-06	
		20.88	MMcf	851.93	hr	Cadmium	1.10E-03	lb/MMcf	1	2.70E-05	1.15E-05	6.38E-04	
		20.88	MMcf	851.93	hr	Chromium	1.40E-03	lb/MMcf	1	3.43E-05	1.46E-05	8.12E-04	
		20.88	MMcf	851.93	hr	Cobalt	8.40E-05	lb/MMcf	1	2.06E-06	8.77E-07	4.87E-05	
		20.88	MMcf	851.93	hr	Dichlorobenzene	1.20E-03	lb/MMcf	1	2.94E-05	1.25E-05	6.96E-04	
		20.88	MMcf	851.93	hr	Formaldehyde	7.50E-02	lb/MMcf	1	1.84E-03	7.83E-04	4.35E-02	
		20.88	MMcf	851.93	hr	Hexane	1.80E+00	lb/MMcf	1	4.41E-02	1.88E-02	1.04E+00	
		20.88	MMcf	851.93	hr	Manganese	3.80E-04	lb/MMcf	1	9.31E-06	3.97E-06	2.20E-04	
		20.88	MMcf	851.93	hr	Mercury	2.60E-04	lb/MMcf	1	6.37E-06	2.71E-06	1.51E-04	
		20.88	MMcf	851.93	hr	Naphthalene	6.10E-04	lb/MMcf	1	1.50E-05	6.37E-06	3.54E-04	
		20.88	MMcf	851.93	hr	Nickel	2.10E-03	lb/MMcf	1	5.15E-05	2.19E-05	1.22E-03	
		20.88	MMcf	851.93	hr	Selenium	2.40E-05	lb/MMcf	1	5.88E-07	2.51E-07	1.39E-05	
		20.88	MMcf	851.93	hr	Toluene	3.40E-03	lb/MMcf	1	8.33E-05	3.55E-05	1.97E-03	
	20.88	MMcf	851.93	hr	Xylene	-	lb/MMcf	-	-	-	-	-	
	20.88	MMcf	851.93	hr	POM	8.82E-05	lb/MMcf	1	2.16E-06	9.21E-07	5.12E-05		
		No. 2 Distillate	0.44	1000 gal	2.45	hr	Acetaldehyde	-	lb/1000 gal	-	-	-	-
			0.44	1000 gal	2.45	hr	Acrolein	-	lb/1000 gal	-	-	-	-
			61.21	MMBtu	2.45	hr	Arsenic	4.00E-06	lb/MMBtu	1	1.00E-04	1.22E-07	2.45E-04
			61.21	MMBtu	2.45	hr	Barium	-	lb/MMBtu	-	-	-	-
			0.44	1000 gal	2.45	hr	Benzene	2.14E-04	lb/1000 gal	1	3.82E-05	4.68E-08	9.36E-05
			61.21	MMBtu	2.45	hr	Beryllium	3.00E-06	lb/MMBtu	1	7.50E-05	9.18E-08	1.84E-04
			61.21	MMBtu	2.45	hr	Cadmium	3.00E-06	lb/MMBtu	1	7.50E-05	9.18E-08	1.84E-04
			61.21	MMBtu	2.45	hr	Chromium	3.00E-06	lb/MMBtu	1	7.50E-05	9.18E-08	1.84E-04
			61.21	MMBtu	2.45	hr	Cobalt	-	lb/MMBtu	-	-	-	-
			61.21	MMBtu	2.45	hr	Dichlorobenzene	-	lb/MMBtu	-	-	-	-
			0.44	1000 gal	2.45	hr	Formaldehyde	3.30E-02	lb/1000 gal	1	5.89E-03	7.21E-06	1.44E-02
			0.44	1000 gal	2.45	hr	Hexane	-	lb/1000 gal	-	-	-	-
	61.21		MMBtu	2.45	hr	Manganese	6.00E-06	lb/MMBtu	1	1.50E-04	1.84E-07	3.67E-04	
	61.21		MMBtu	2.45	hr	Mercury	3.00E-06	lb/MMBtu	1	7.50E-05	9.18E-08	1.84E-04	
	0.44	1000 gal	2.45	hr	Naphthalene	1.13E-03	lb/1000 gal	1	2.02E-04	2.47E-07	4.94E-04		
	61.21	MMBtu	2.45	hr	Nickel	3.00E-06	lb/MMBtu	1	7.50E-05	9.18E-08	1.84E-04		
	61.21	MMBtu	2.45	hr	Selenium	1.50E-05	lb/MMBtu	1	3.75E-04	4.59E-07	9.18E-04		
	0.44	1000 gal	2.45	hr	Toluene	6.20E-03	lb/1000 gal	1	1.11E-03	1.36E-06	2.71E-03		
	0.44	1000 gal	2.45	hr	Xylene	1.09E-04	lb/1000 gal	1	1.95E-05	2.38E-08	4.77E-05		
	0.44	1000 gal	2.45	hr	POM	3.30E-03	lb/1000 gal	1	5.89E-04	7.21E-07	1.44E-03		

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Source Description and Location	Source Process Material	Annual Process Throughput		Annual Process Duration		HAPS	Emission Factors			Actual Emission Estimates		
		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day
EU-31 Building 123 Boiler (3.22 MMBtu/hr)	No. 2 Distillate	9.37	1000 gal	407.57	hr	Acetaldehyde	-	lb/1000 gal	-	-	-	-
		9.37	1000 gal	407.57	hr	Acrolein	-	lb/1000 gal	-	-	-	-
		1,312.36	MMBtu	407.57	hr	Arsenic	4.00E-06	lb/MMBtu	1	1.29E-05	2.62E-06	3.09E-04
		1,312.36	MMBtu	407.57	hr	Barium	-	lb/MMBtu	-	-	-	-
		9.37	1000 gal	407.57	hr	Benzene	2.14E-04	lb/1000 gal	1	4.92E-06	1.00E-06	1.18E-04
		1,312.36	MMBtu	407.57	hr	Beryllium	3.00E-06	lb/MMBtu	1	9.66E-06	1.97E-06	2.32E-04
		1,312.36	MMBtu	407.57	hr	Cadmium	3.00E-06	lb/MMBtu	1	9.66E-06	1.97E-06	2.32E-04
		1,312.36	MMBtu	407.57	hr	Chromium	3.00E-06	lb/MMBtu	1	9.66E-06	1.97E-06	2.32E-04
		1,312.36	MMBtu	407.57	hr	Cobalt	-	lb/MMBtu	-	-	-	-
		1,312.36	MMBtu	407.57	hr	Dichlorobenzene	-	lb/MMBtu	-	-	-	-
		9.37	1000 gal	407.57	hr	Formaldehyde	3.30E-02	lb/1000 gal	1	7.59E-04	1.55E-04	1.82E-02
		9.37	1000 gal	407.57	hr	Hexane	-	lb/1000 gal	-	-	-	-
		1,312.36	MMBtu	407.57	hr	Manganese	6.00E-06	lb/MMBtu	1	1.93E-05	3.94E-06	4.63E-04
		1,312.36	MMBtu	407.57	hr	Mercury	3.00E-06	lb/MMBtu	1	9.66E-06	1.97E-06	2.32E-04
		9.37	1000 gal	407.57	hr	Naphthalene	1.13E-03	lb/1000 gal	1	2.60E-05	5.30E-06	6.23E-04
		1,312.36	MMBtu	407.57	hr	Nickel	3.00E-06	lb/MMBtu	1	9.66E-06	1.97E-06	2.32E-04
		1,312.36	MMBtu	407.57	hr	Selenium	1.50E-05	lb/MMBtu	1	4.83E-05	9.84E-06	1.16E-03
		9.37	1000 gal	407.57	hr	Toluene	6.20E-03	lb/1000 gal	1	1.43E-04	2.91E-05	3.42E-03
9.37	1000 gal	407.57	hr	Xylene	1.09E-04	lb/1000 gal	1	2.51E-06	5.11E-07	6.01E-05		
9.37	1000 gal	407.57	hr	POM	3.30E-03	lb/1000 gal	1	7.59E-05	1.55E-05	1.82E-03		
EU-19 Boiler #1 - Concourse E (1.99 MMBtu/hr)	Natural Gas	0.00	MMcf	0.40	hr	Acetaldehyde	-	lb/MMcf	-	-	-	-
		0.00	MMcf	0.40	hr	Acrolein	-	lb/MMcf	-	-	-	-
		0.00	MMcf	0.40	hr	Arsenic	2.00E-04	lb/MMcf	1	3.90E-07	7.84E-11	1.57E-07
		0.00	MMcf	0.40	hr	Barium	4.40E-03	lb/MMcf	1	8.58E-06	1.73E-09	3.45E-06
		0.00	MMcf	0.40	hr	Benzene	2.10E-03	lb/MMcf	1	4.10E-06	8.24E-10	1.65E-06
		0.00	MMcf	0.40	hr	Beryllium	1.20E-05	lb/MMcf	1	2.34E-08	4.71E-12	9.41E-09
		0.00	MMcf	0.40	hr	Cadmium	1.10E-03	lb/MMcf	1	2.15E-06	4.31E-10	8.63E-07
		0.00	MMcf	0.40	hr	Chromium	1.40E-03	lb/MMcf	1	2.73E-06	5.49E-10	1.10E-06
		0.00	MMcf	0.40	hr	Cobalt	8.40E-05	lb/MMcf	1	1.64E-07	3.29E-11	6.59E-08
		0.00	MMcf	0.40	hr	Dichlorobenzene	1.20E-03	lb/MMcf	5	2.34E-06	4.71E-10	9.41E-07
		0.00	MMcf	0.40	hr	Formaldehyde	7.50E-02	lb/MMcf	1	1.46E-04	2.94E-08	5.88E-05
		0.00	MMcf	0.40	hr	Hexane	1.80E+00	lb/MMcf	1	3.51E-03	7.06E-07	1.41E-03
		0.00	MMcf	0.40	hr	Manganese	3.80E-04	lb/MMcf	1	7.41E-07	1.49E-10	2.98E-07
		0.00	MMcf	0.40	hr	Mercury	2.60E-04	lb/MMcf	1	5.07E-07	1.02E-10	2.04E-07
		0.00	MMcf	0.40	hr	Naphthalene	6.10E-04	lb/MMcf	1	1.19E-06	2.39E-10	4.78E-07
		0.00	MMcf	0.40	hr	Nickel	2.10E-03	lb/MMcf	1	4.10E-06	8.24E-10	1.65E-06
		0.00	MMcf	0.40	hr	Selenium	2.40E-05	lb/MMcf	1	4.68E-08	9.41E-12	1.88E-08
		0.00	MMcf	0.40	hr	Toluene	3.40E-03	lb/MMcf	1	6.63E-06	1.33E-09	2.67E-06
0.00	MMcf	0.40	hr	Xylene	-	lb/MMcf	-	-	-	-		
0.00	MMcf	0.40	hr	POM	8.82E-05	lb/MMcf	1	1.72E-07	3.46E-11	6.92E-08		
EU-20 Boilers #2 - Concourse E (1.99 MMBtu/hr)	Natural Gas	0.00	MMcf	0.40	hr	Acetaldehyde	-	lb/MMcf	-	-	-	-
		0.00	MMcf	0.40	hr	Acrolein	-	lb/MMcf	-	-	-	-
		0.00	MMcf	0.40	hr	Arsenic	2.00E-04	lb/MMcf	1	3.90E-07	7.84E-11	1.57E-07
		0.00	MMcf	0.40	hr	Barium	4.40E-03	lb/MMcf	1	8.58E-06	1.73E-09	3.45E-06
		0.00	MMcf	0.40	hr	Benzene	2.10E-03	lb/MMcf	1	4.10E-06	8.24E-10	1.65E-06
		0.00	MMcf	0.40	hr	Beryllium	1.20E-05	lb/MMcf	1	2.34E-08	4.71E-12	9.41E-09
		0.00	MMcf	0.40	hr	Cadmium	1.10E-03	lb/MMcf	1	2.15E-06	4.31E-10	8.63E-07
		0.00	MMcf	0.40	hr	Chromium	1.40E-03	lb/MMcf	1	2.73E-06	5.49E-10	1.10E-06
		0.00	MMcf	0.40	hr	Cobalt	8.40E-05	lb/MMcf	1	1.64E-07	3.29E-11	6.59E-08
		0.00	MMcf	0.40	hr	Dichlorobenzene	1.20E-03	lb/MMcf	5	2.34E-06	4.71E-10	9.41E-07
		0.00	MMcf	0.40	hr	Formaldehyde	7.50E-02	lb/MMcf	1	1.46E-04	2.94E-08	5.88E-05
		0.00	MMcf	0.40	hr	Hexane	1.80E+00	lb/MMcf	1	3.51E-03	7.06E-07	1.41E-03
		0.00	MMcf	0.40	hr	Manganese	3.80E-04	lb/MMcf	1	7.41E-07	1.49E-10	2.98E-07
		0.00	MMcf	0.40	hr	Mercury	2.60E-04	lb/MMcf	1	5.07E-07	1.02E-10	2.04E-07
		0.00	MMcf	0.40	hr	Naphthalene	6.10E-04	lb/MMcf	1	1.19E-06	2.39E-10	4.78E-07
		0.00	MMcf	0.40	hr	Nickel	2.10E-03	lb/MMcf	1	4.10E-06	8.24E-10	1.65E-06
		0.00	MMcf	0.40	hr	Selenium	2.40E-05	lb/MMcf	1	4.68E-08	9.41E-12	1.88E-08
		0.00	MMcf	0.40	hr	Toluene	3.40E-03	lb/MMcf	1	6.63E-06	1.33E-09	2.67E-06
0.00	MMcf	0.40	hr	Xylene	-	lb/MMcf	-	-	-	-		
0.00	MMcf	0.40	hr	POM	8.82E-05	lb/MMcf	1	1.72E-07	3.46E-11	6.92E-08		

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Source Description and Location	Source Process Material	Annual Process Throughput		Annual Process Duration		HAPS	Emission Factors			Actual Emission Estimates				
		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day		
EU-23 Boiler #1 - Concourse B (3.0 MMBtu/hr)	Natural Gas	6.59	MMcf	2,241.20	hr	Acetaldehyde	-	lb/MMcf	-	-	-	-		
		6.59	MMcf	2,241.20	hr	Acrolein	-	lb/MMcf	-	-	-	-		
		6.59	MMcf	2,241.20	hr	Arsenic	2.00E-04	lb/MMcf	1	5.88E-07	6.59E-07	1.40E-05		
		6.59	MMcf	2,241.20	hr	Barium	4.40E-03	lb/MMcf	1	1.29E-05	1.45E-05	3.09E-04		
		6.59	MMcf	2,241.20	hr	Benzene	2.10E-03	lb/MMcf	1	6.18E-06	6.92E-06	1.47E-04		
		6.59	MMcf	2,241.20	hr	Beryllium	1.20E-05	lb/MMcf	1	3.53E-08	3.96E-08	8.42E-07		
		6.59	MMcf	2,241.20	hr	Cadmium	1.10E-03	lb/MMcf	1	3.24E-06	3.63E-06	7.71E-05		
		6.59	MMcf	2,241.20	hr	Chromium	1.40E-03	lb/MMcf	1	4.12E-06	4.61E-06	9.82E-05		
		6.59	MMcf	2,241.20	hr	Cobalt	8.40E-05	lb/MMcf	1	2.47E-07	2.77E-07	5.89E-06		
		6.59	MMcf	2,241.20	hr	Dichlorobenzene	1.20E-03	lb/MMcf	1	3.53E-06	3.96E-06	8.42E-05		
		6.59	MMcf	2,241.20	hr	Formaldehyde	7.50E-02	lb/MMcf	1	2.21E-04	2.47E-04	5.26E-03		
		6.59	MMcf	2,241.20	hr	Hexane	1.80E+00	lb/MMcf	1	5.29E-03	5.93E-03	1.26E-01		
		6.59	MMcf	2,241.20	hr	Manganese	3.80E-04	lb/MMcf	1	1.12E-06	1.25E-06	2.66E-05		
		6.59	MMcf	2,241.20	hr	Mercury	2.60E-04	lb/MMcf	1	7.65E-07	8.57E-07	1.82E-05		
		6.59	MMcf	2,241.20	hr	Naphthalene	6.10E-04	lb/MMcf	1	1.79E-06	2.01E-06	4.28E-05		
		EU-24 Boiler #2 - Concourse B (3.0 MMBtu/hr)	Natural Gas	6.59	MMcf	2,241.20	hr	Acetaldehyde	-	lb/MMcf	-	-	-	-
				6.59	MMcf	2,241.20	hr	Acrolein	-	lb/MMcf	-	-	-	-
6.59	MMcf			2,241.20	hr	Arsenic	2.00E-04	lb/MMcf	1	5.88E-07	6.59E-07	1.40E-05		
6.59	MMcf			2,241.20	hr	Barium	4.40E-03	lb/MMcf	1	1.29E-05	1.45E-05	3.09E-04		
6.59	MMcf			2,241.20	hr	Benzene	2.10E-03	lb/MMcf	1	6.18E-06	6.92E-06	1.47E-04		
6.59	MMcf			2,241.20	hr	Beryllium	1.20E-05	lb/MMcf	1	3.53E-08	3.96E-08	8.42E-07		
6.59	MMcf			2,241.20	hr	Cadmium	1.10E-03	lb/MMcf	1	3.24E-06	3.63E-06	7.71E-05		
6.59	MMcf			2,241.20	hr	Chromium	1.40E-03	lb/MMcf	1	4.12E-06	4.61E-06	9.82E-05		
6.59	MMcf			2,241.20	hr	Cobalt	8.40E-05	lb/MMcf	1	2.47E-07	2.77E-07	5.89E-06		
6.59	MMcf			2,241.20	hr	Dichlorobenzene	1.20E-03	lb/MMcf	1	3.53E-06	3.96E-06	8.42E-05		
6.59	MMcf			2,241.20	hr	Formaldehyde	7.50E-02	lb/MMcf	1	2.21E-04	2.47E-04	5.26E-03		
6.59	MMcf			2,241.20	hr	Hexane	1.80E+00	lb/MMcf	1	5.29E-03	5.93E-03	1.26E-01		
6.59	MMcf			2,241.20	hr	Manganese	3.80E-04	lb/MMcf	1	1.12E-06	1.25E-06	2.66E-05		
6.59	MMcf			2,241.20	hr	Mercury	2.60E-04	lb/MMcf	1	7.65E-07	8.57E-07	1.82E-05		
6.59	MMcf			2,241.20	hr	Naphthalene	6.10E-04	lb/MMcf	1	1.79E-06	2.01E-06	4.28E-05		
EU-25 Boiler #3 - Concourse B (3.0 MMBtu/hr)	Natural Gas			6.59	MMcf	2,241.20	hr	Acetaldehyde	-	lb/MMcf	-	-	-	-
				6.59	MMcf	2,241.20	hr	Acrolein	-	lb/MMcf	-	-	-	-
		6.59	MMcf	2,241.20	hr	Arsenic	2.00E-04	lb/MMcf	1	5.88E-07	6.59E-07	1.40E-05		
		6.59	MMcf	2,241.20	hr	Barium	4.40E-03	lb/MMcf	1	1.29E-05	1.45E-05	3.09E-04		
		6.59	MMcf	2,241.20	hr	Benzene	2.10E-03	lb/MMcf	1	6.18E-06	6.92E-06	1.47E-04		
		6.59	MMcf	2,241.20	hr	Beryllium	1.20E-05	lb/MMcf	1	3.53E-08	3.96E-08	8.42E-07		
		6.59	MMcf	2,241.20	hr	Cadmium	1.10E-03	lb/MMcf	1	3.24E-06	3.63E-06	7.71E-05		
		6.59	MMcf	2,241.20	hr	Chromium	1.40E-03	lb/MMcf	1	4.12E-06	4.61E-06	9.82E-05		
		6.59	MMcf	2,241.20	hr	Cobalt	8.40E-05	lb/MMcf	1	2.47E-07	2.77E-07	5.89E-06		
		6.59	MMcf	2,241.20	hr	Dichlorobenzene	1.20E-03	lb/MMcf	1	3.53E-06	3.96E-06	8.42E-05		
		6.59	MMcf	2,241.20	hr	Formaldehyde	7.50E-02	lb/MMcf	1	2.21E-04	2.47E-04	5.26E-03		
		6.59	MMcf	2,241.20	hr	Hexane	1.80E+00	lb/MMcf	1	5.29E-03	5.93E-03	1.26E-01		
		6.59	MMcf	2,241.20	hr	Manganese	3.80E-04	lb/MMcf	1	1.12E-06	1.25E-06	2.66E-05		
		6.59	MMcf	2,241.20	hr	Mercury	2.60E-04	lb/MMcf	1	7.65E-07	8.57E-07	1.82E-05		
		6.59	MMcf	2,241.20	hr	Naphthalene	6.10E-04	lb/MMcf	1	1.79E-06	2.01E-06	4.28E-05		
		6.59	MMcf	2,241.20	hr	Nickel	2.10E-03	lb/MMcf	1	6.18E-06	6.92E-06	1.47E-04		
		6.59	MMcf	2,241.20	hr	Selenium	2.40E-05	lb/MMcf	1	7.06E-08	7.91E-08	1.68E-06		
6.59	MMcf	2,241.20	hr	Toluene	3.40E-03	lb/MMcf	1	1.00E-05	1.12E-05	2.38E-04				
6.59	MMcf	2,241.20	hr	Xylene	-	lb/MMcf	-	-	-	-	-			
6.59	MMcf	2,241.20	hr	POM	8.82E-05	lb/MMcf	1	2.59E-07	2.91E-07	6.19E-06				

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		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day
EU-26 Boiler #4 - Concourse B (3.0 MMBtu/hr)	Natural Gas	6.59	MMcf	2,241.20	hr	Acetaldehyde	-	lb/MMcf	-	-	-	-
		6.59	MMcf	2,241.20	hr	Acrolein	-	lb/MMcf	-	-	-	-
		6.59	MMcf	2,241.20	hr	Arsenic	2.00E-04	lb/MMcf	1	5.88E-07	6.59E-07	1.40E-05
		6.59	MMcf	2,241.20	hr	Barium	4.40E-03	lb/MMcf	1	1.29E-05	1.45E-05	3.09E-04
		6.59	MMcf	2,241.20	hr	Benzene	2.10E-03	lb/MMcf	1	6.18E-06	6.92E-06	1.47E-04
		6.59	MMcf	2,241.20	hr	Beryllium	1.20E-05	lb/MMcf	1	3.53E-08	3.96E-08	8.42E-07
		6.59	MMcf	2,241.20	hr	Cadmium	1.10E-03	lb/MMcf	1	3.24E-06	3.63E-06	7.71E-05
		6.59	MMcf	2,241.20	hr	Chromium	1.40E-03	lb/MMcf	1	4.12E-06	4.61E-06	9.82E-05
		6.59	MMcf	2,241.20	hr	Cobalt	8.40E-05	lb/MMcf	1	2.47E-07	2.77E-07	5.89E-06
		6.59	MMcf	2,241.20	hr	Dichlorobenzene	1.20E-03	lb/MMcf	1	3.53E-06	3.96E-06	8.42E-05
		6.59	MMcf	2,241.20	hr	Formaldehyde	7.50E-02	lb/MMcf	1	2.21E-04	2.47E-04	5.26E-03
		6.59	MMcf	2,241.20	hr	Hexane	1.80E+00	lb/MMcf	1	5.29E-03	5.93E-03	1.26E-01
		6.59	MMcf	2,241.20	hr	Manganese	3.80E-04	lb/MMcf	1	1.12E-06	1.25E-06	2.66E-05
		6.59	MMcf	2,241.20	hr	Mercury	2.60E-04	lb/MMcf	1	7.65E-07	8.57E-07	1.82E-05
		6.59	MMcf	2,241.20	hr	Naphthalene	6.10E-04	lb/MMcf	1	1.79E-06	2.01E-06	4.28E-05
		6.59	MMcf	2,241.20	hr	Nickel	2.10E-03	lb/MMcf	1	6.18E-06	6.92E-06	1.47E-04
		6.59	MMcf	2,241.20	hr	Selenium	2.40E-05	lb/MMcf	1	7.06E-08	7.91E-08	1.68E-06
6.59	MMcf	2,241.20	hr	Toluene	3.40E-03	lb/MMcf	1	1.00E-05	1.12E-05	2.38E-04		
6.59	MMcf	2,241.20	hr	Xylene	-	lb/MMcf	-	-	-	-	-	
6.59	MMcf	2,241.20	hr	POM	8.82E-05	lb/MMcf	1	2.59E-07	2.91E-07	6.19E-06		
EU-27 ARFF Building (#105) Boiler (1.0 MMBtu/hr)	Natural Gas	1.10	MMcf	1,123.92	hr	Acetaldehyde	-	lb/MMcf	-	-	-	-
		1.10	MMcf	1,123.92	hr	Acrolein	-	lb/MMcf	-	-	-	-
		1.10	MMcf	1,123.92	hr	Arsenic	2.00E-04	lb/MMcf	1	1.96E-07	1.10E-07	4.69E-06
		1.10	MMcf	1,123.92	hr	Barium	4.40E-03	lb/MMcf	1	4.31E-06	2.42E-06	1.03E-04
		1.10	MMcf	1,123.92	hr	Benzene	2.10E-03	lb/MMcf	1	2.06E-06	1.16E-06	4.92E-05
		1.10	MMcf	1,123.92	hr	Beryllium	1.20E-05	lb/MMcf	1	1.18E-08	6.61E-09	2.81E-07
		1.10	MMcf	1,123.92	hr	Cadmium	1.10E-03	lb/MMcf	1	1.08E-06	6.06E-07	2.58E-05
		1.10	MMcf	1,123.92	hr	Chromium	1.40E-03	lb/MMcf	1	1.37E-06	7.71E-07	3.28E-05
		1.10	MMcf	1,123.92	hr	Cobalt	8.40E-05	lb/MMcf	1	8.24E-08	4.63E-08	1.97E-06
		1.10	MMcf	1,123.92	hr	Dichlorobenzene	1.20E-03	lb/MMcf	1	1.18E-06	6.61E-07	2.81E-05
		1.10	MMcf	1,123.92	hr	Formaldehyde	7.50E-02	lb/MMcf	1	7.35E-05	4.13E-05	1.76E-03
		1.10	MMcf	1,123.92	hr	Hexane	1.80E+00	lb/MMcf	1	1.76E-03	9.92E-04	4.22E-02
		1.10	MMcf	1,123.92	hr	Manganese	3.80E-04	lb/MMcf	1	3.73E-07	2.09E-07	8.91E-06
		1.10	MMcf	1,123.92	hr	Mercury	2.60E-04	lb/MMcf	1	2.55E-07	1.43E-07	6.10E-06
		1.10	MMcf	1,123.92	hr	Naphthalene	6.10E-04	lb/MMcf	1	5.98E-07	3.36E-07	1.43E-05
		1.10	MMcf	1,123.92	hr	Nickel	2.10E-03	lb/MMcf	1	2.06E-06	1.16E-06	4.92E-05
		1.10	MMcf	1,123.92	hr	Selenium	2.40E-05	lb/MMcf	1	2.35E-08	1.32E-08	5.63E-07
1.10	MMcf	1,123.92	hr	Toluene	3.40E-03	lb/MMcf	1	3.33E-06	1.87E-06	7.97E-05		
1.10	MMcf	1,123.92	hr	Xylene	-	lb/MMcf	-	-	-	-	-	
1.10	MMcf	1,123.92	hr	POM	8.82E-05	lb/MMcf	1	8.65E-08	4.86E-08	2.07E-06		
EU-4 Standby Generator Pier D Front of Terminal (505 kW)	Diesel	251.37	MMBtu	49.60	hr	Acetaldehyde	2.52E-05	lb/MMBtu	1	1.28E-04	3.17E-06	9.90E-05
		251.37	MMBtu	49.60	hr	Acrolein	7.88E-06	lb/MMBtu	1	3.99E-05	9.90E-07	3.10E-05
		251.37	MMBtu	49.60	hr	Arsenic	-	lb/MMBtu	-	-	-	-
		251.37	MMBtu	49.60	hr	Barium	-	lb/MMBtu	-	-	-	-
		251.37	MMBtu	49.60	hr	Benzene	7.76E-04	lb/MMBtu	1	3.93E-03	9.75E-05	3.05E-03
		251.37	MMBtu	49.60	hr	Beryllium	-	lb/MMBtu	-	-	-	-
		251.37	MMBtu	49.60	hr	Cadmium	-	lb/MMBtu	-	-	-	-
		251.37	MMBtu	49.60	hr	Chromium	-	lb/MMBtu	-	-	-	-
		251.37	MMBtu	49.60	hr	Cobalt	-	lb/MMBtu	-	-	-	-
		251.37	MMBtu	49.60	hr	Dichlorobenzene	-	lb/MMBtu	-	-	-	-
		251.37	MMBtu	49.60	hr	Formaldehyde	7.89E-05	lb/MMBtu	1	4.00E-04	9.92E-06	3.10E-04
		251.37	MMBtu	49.60	hr	Hexane	-	lb/MMBtu	-	-	-	-
		251.37	MMBtu	49.60	hr	Manganese	-	lb/MMBtu	-	-	-	-
		251.37	MMBtu	49.60	hr	Mercury	-	lb/MMBtu	-	-	-	-
		251.37	MMBtu	49.60	hr	Naphthalene	1.30E-04	lb/MMBtu	1	6.59E-04	1.63E-05	5.11E-04
		251.37	MMBtu	49.60	hr	Nickel	-	lb/MMBtu	-	-	-	-
		251.37	MMBtu	49.60	hr	Selenium	-	lb/MMBtu	-	-	-	-
251.37	MMBtu	49.60	hr	Toluene	2.81E-04	lb/MMBtu	1	1.42E-03	3.53E-05	1.10E-03		
251.37	MMBtu	49.60	hr	Xylene	1.93E-04	lb/MMBtu	1	9.78E-04	2.43E-05	7.58E-04		
251.37	MMBtu	49.60	hr	POM	2.12E-04	lb/MMBtu	1	1.07E-03	2.66E-05	8.33E-04		

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Source Description and Location	Source Process Material	Annual Process Throughput		Annual Process Duration		HAPS	Emission Factors			Actual Emission Estimates		
		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day
EU-5 Standby Generator Daily Parking Garage (750 kW)	Diesel	331.18	MMBtu	44.00	hr	Acetaldehyde	2.52E-05	lb/MMBtu	1	1.90E-04	4.17E-06	1.30E-04
		331.18	MMBtu	44.00	hr	Acrolein	7.88E-06	lb/MMBtu	1	5.93E-05	1.30E-06	4.08E-05
		331.18	MMBtu	44.00	hr	Arsenic	-	lb/MMBtu	-	-	-	-
		331.18	MMBtu	44.00	hr	Barium	-	lb/MMBtu	-	-	-	-
		331.18	MMBtu	44.00	hr	Benzene	7.76E-04	lb/MMBtu	1	5.84E-03	1.28E-04	4.02E-03
		331.18	MMBtu	44.00	hr	Beryllium	-	lb/MMBtu	-	-	-	-
		331.18	MMBtu	44.00	hr	Cadmium	-	lb/MMBtu	-	-	-	-
		331.18	MMBtu	44.00	hr	Chromium	-	lb/MMBtu	-	-	-	-
		331.18	MMBtu	44.00	hr	Cobalt	-	lb/MMBtu	-	-	-	-
		331.18	MMBtu	44.00	hr	Dichlorobenzene	-	lb/MMBtu	-	-	-	-
		331.18	MMBtu	44.00	hr	Formaldehyde	7.89E-05	lb/MMBtu	1	5.94E-04	1.31E-05	4.08E-04
		331.18	MMBtu	44.00	hr	Hexane	-	lb/MMBtu	-	-	-	-
		331.18	MMBtu	44.00	hr	Manganese	-	lb/MMBtu	-	-	-	-
		331.18	MMBtu	44.00	hr	Mercury	-	lb/MMBtu	-	-	-	-
		331.18	MMBtu	44.00	hr	Naphthalene	1.30E-04	lb/MMBtu	1	9.78E-04	2.15E-05	6.73E-04
		331.18	MMBtu	44.00	hr	Nickel	-	lb/MMBtu	-	-	-	-
331.18	MMBtu	44.00	hr	Selenium	-	lb/MMBtu	-	-	-	-		
331.18	MMBtu	44.00	hr	Toluene	2.81E-04	lb/MMBtu	1	2.12E-03	4.65E-05	1.45E-03		
331.18	MMBtu	44.00	hr	Xylene	1.93E-04	lb/MMBtu	1	1.45E-03	3.20E-05	9.99E-04		
331.18	MMBtu	44.00	hr	POM	2.12E-04	lb/MMBtu	1	1.60E-03	3.51E-05	1.10E-03		
EU-6 Standby Generator Pier A (900 kW)	Diesel	379.35	MMBtu	42.00	hr	Acetaldehyde	2.52E-05	lb/MMBtu	1	2.28E-04	4.78E-06	1.49E-04
		379.35	MMBtu	42.00	hr	Acrolein	7.88E-06	lb/MMBtu	1	7.12E-05	1.49E-06	4.67E-05
		379.35	MMBtu	42.00	hr	Arsenic	-	lb/MMBtu	-	-	-	-
		379.35	MMBtu	42.00	hr	Barium	-	lb/MMBtu	-	-	-	-
		379.35	MMBtu	42.00	hr	Benzene	7.76E-04	lb/MMBtu	1	7.01E-03	1.47E-04	4.60E-03
		379.35	MMBtu	42.00	hr	Beryllium	-	lb/MMBtu	-	-	-	-
		379.35	MMBtu	42.00	hr	Cadmium	-	lb/MMBtu	-	-	-	-
		379.35	MMBtu	42.00	hr	Chromium	-	lb/MMBtu	-	-	-	-
		379.35	MMBtu	42.00	hr	Cobalt	-	lb/MMBtu	-	-	-	-
		379.35	MMBtu	42.00	hr	Dichlorobenzene	-	lb/MMBtu	-	-	-	-
		379.35	MMBtu	42.00	hr	Formaldehyde	7.89E-05	lb/MMBtu	1	7.13E-04	1.50E-05	4.68E-04
		379.35	MMBtu	42.00	hr	Hexane	-	lb/MMBtu	-	-	-	-
		379.35	MMBtu	42.00	hr	Manganese	-	lb/MMBtu	-	-	-	-
		379.35	MMBtu	42.00	hr	Mercury	-	lb/MMBtu	-	-	-	-
		379.35	MMBtu	42.00	hr	Naphthalene	1.30E-04	lb/MMBtu	1	1.17E-03	2.47E-05	7.71E-04
		379.35	MMBtu	42.00	hr	Nickel	-	lb/MMBtu	-	-	-	-
379.35	MMBtu	42.00	hr	Selenium	-	lb/MMBtu	-	-	-	-		
379.35	MMBtu	42.00	hr	Toluene	2.81E-04	lb/MMBtu	1	2.54E-03	5.33E-05	1.67E-03		
379.35	MMBtu	42.00	hr	Xylene	1.93E-04	lb/MMBtu	1	1.74E-03	3.66E-05	1.14E-03		
379.35	MMBtu	42.00	hr	POM	2.12E-04	lb/MMBtu	1	1.91E-03	4.02E-05	1.26E-03		
EU-10 Standby Generator International Terminal Roof (600 kW)	Diesel	349.24	MMBtu	58.00	hr	Acetaldehyde	2.52E-05	lb/MMBtu	1	1.52E-04	4.40E-06	1.38E-04
		349.24	MMBtu	58.00	hr	Acrolein	7.88E-06	lb/MMBtu	1	4.74E-05	1.38E-06	4.30E-05
		349.24	MMBtu	58.00	hr	Arsenic	-	lb/MMBtu	-	-	-	-
		349.24	MMBtu	58.00	hr	Barium	-	lb/MMBtu	-	-	-	-
		349.24	MMBtu	58.00	hr	Benzene	7.76E-04	lb/MMBtu	1	4.67E-03	1.36E-04	4.23E-03
		349.24	MMBtu	58.00	hr	Beryllium	-	lb/MMBtu	-	-	-	-
		349.24	MMBtu	58.00	hr	Cadmium	-	lb/MMBtu	-	-	-	-
		349.24	MMBtu	58.00	hr	Chromium	-	lb/MMBtu	-	-	-	-
		349.24	MMBtu	58.00	hr	Cobalt	-	lb/MMBtu	-	-	-	-
		349.24	MMBtu	58.00	hr	Dichlorobenzene	-	lb/MMBtu	-	-	-	-
		349.24	MMBtu	58.00	hr	Formaldehyde	7.89E-05	lb/MMBtu	1	4.75E-04	1.38E-05	4.31E-04
		349.24	MMBtu	58.00	hr	Hexane	-	lb/MMBtu	-	-	-	-
		349.24	MMBtu	58.00	hr	Manganese	-	lb/MMBtu	-	-	-	-
		349.24	MMBtu	58.00	hr	Mercury	-	lb/MMBtu	-	-	-	-
		349.24	MMBtu	58.00	hr	Naphthalene	1.30E-04	lb/MMBtu	1	7.83E-04	2.27E-05	7.09E-04
		349.24	MMBtu	58.00	hr	Nickel	-	lb/MMBtu	-	-	-	-
349.24	MMBtu	58.00	hr	Selenium	-	lb/MMBtu	-	-	-	-		
349.24	MMBtu	58.00	hr	Toluene	2.81E-04	lb/MMBtu	1	1.69E-03	4.91E-05	1.53E-03		
349.24	MMBtu	58.00	hr	Xylene	1.93E-04	lb/MMBtu	1	1.16E-03	3.37E-05	1.05E-03		
349.24	MMBtu	58.00	hr	POM	2.12E-04	lb/MMBtu	1	1.28E-03	3.70E-05	1.16E-03		

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		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day
EU-11 Standby Generator MAC Building (410 kW)	Diesel	175.28	MMBtu	42.60	hr	Acetaldehyde	7.67E-04	lb/MMBtu	1	3.16E-03	6.72E-05	2.10E-03
		175.28	MMBtu	42.60	hr	Acrolein	9.25E-05	lb/MMBtu	1	3.81E-04	8.11E-06	2.53E-04
		175.28	MMBtu	42.60	hr	Arsenic	-	lb/MMBtu	-	-	-	-
		175.28	MMBtu	42.60	hr	Barium	-	lb/MMBtu	-	-	-	-
		175.28	MMBtu	42.60	hr	Benzene	9.33E-04	lb/MMBtu	1	3.84E-03	8.18E-05	2.56E-03
		175.28	MMBtu	42.60	hr	Beryllium	-	lb/MMBtu	-	-	-	-
		175.28	MMBtu	42.60	hr	Cadmium	-	lb/MMBtu	-	-	-	-
		175.28	MMBtu	42.60	hr	Chromium	-	lb/MMBtu	-	-	-	-
		175.28	MMBtu	42.60	hr	Cobalt	-	lb/MMBtu	-	-	-	-
		175.28	MMBtu	42.60	hr	Dichlorobenzene	-	lb/MMBtu	-	-	-	-
		175.28	MMBtu	42.60	hr	Formaldehyde	1.18E-03	lb/MMBtu	1	4.86E-03	1.03E-04	3.23E-03
		175.28	MMBtu	42.60	hr	Hexane	-	lb/MMBtu	-	-	-	-
		175.28	MMBtu	42.60	hr	Manganese	-	lb/MMBtu	-	-	-	-
		175.28	MMBtu	42.60	hr	Mercury	-	lb/MMBtu	-	-	-	-
		175.28	MMBtu	42.60	hr	Naphthalene	8.48E-05	lb/MMBtu	1	3.49E-04	7.43E-06	2.32E-04
		175.28	MMBtu	42.60	hr	Nickel	-	lb/MMBtu	-	-	-	-
		175.28	MMBtu	42.60	hr	Selenium	-	lb/MMBtu	-	-	-	-
175.28	MMBtu	42.60	hr	Toluene	4.09E-04	lb/MMBtu	1	1.68E-03	3.58E-05	1.12E-03		
175.28	MMBtu	42.60	hr	Xylene	2.85E-04	lb/MMBtu	1	1.17E-03	2.50E-05	7.81E-04		
175.28	MMBtu	42.60	hr	POM	1.68E-04	lb/MMBtu	1	6.91E-04	1.47E-05	4.60E-04		
EU-12 Standby Generator Aircraft Lighting Vault (600 kW)	Diesel	746.66	MMBtu	124.00	hr	Acetaldehyde	2.52E-05	lb/MMBtu	1	1.52E-04	9.41E-06	2.61E-04
		746.66	MMBtu	124.00	hr	Acrolein	7.88E-06	lb/MMBtu	1	4.74E-05	2.94E-06	8.17E-05
		746.66	MMBtu	124.00	hr	Arsenic	-	lb/MMBtu	-	-	-	-
		746.66	MMBtu	124.00	hr	Barium	-	lb/MMBtu	-	-	-	-
		746.66	MMBtu	124.00	hr	Benzene	7.76E-04	lb/MMBtu	1	4.67E-03	2.90E-04	8.05E-03
		746.66	MMBtu	124.00	hr	Beryllium	-	lb/MMBtu	-	-	-	-
		746.66	MMBtu	124.00	hr	Cadmium	-	lb/MMBtu	-	-	-	-
		746.66	MMBtu	124.00	hr	Chromium	-	lb/MMBtu	-	-	-	-
		746.66	MMBtu	124.00	hr	Cobalt	-	lb/MMBtu	-	-	-	-
		746.66	MMBtu	124.00	hr	Dichlorobenzene	-	lb/MMBtu	-	-	-	-
		746.66	MMBtu	124.00	hr	Formaldehyde	7.89E-05	lb/MMBtu	1	4.75E-04	2.95E-05	8.18E-04
		746.66	MMBtu	124.00	hr	Hexane	-	lb/MMBtu	-	-	-	-
		746.66	MMBtu	124.00	hr	Manganese	-	lb/MMBtu	-	-	-	-
		746.66	MMBtu	124.00	hr	Mercury	-	lb/MMBtu	-	-	-	-
		746.66	MMBtu	124.00	hr	Naphthalene	1.30E-04	lb/MMBtu	1	7.83E-04	4.85E-05	1.35E-03
		746.66	MMBtu	124.00	hr	Nickel	-	lb/MMBtu	-	-	-	-
		746.66	MMBtu	124.00	hr	Selenium	-	lb/MMBtu	-	-	-	-
746.66	MMBtu	124.00	hr	Toluene	2.81E-04	lb/MMBtu	1	1.69E-03	1.05E-04	2.91E-03		
746.66	MMBtu	124.00	hr	Xylene	1.93E-04	lb/MMBtu	1	1.16E-03	7.21E-05	2.00E-03		
746.66	MMBtu	124.00	hr	POM	2.12E-04	lb/MMBtu	1	1.28E-03	7.91E-05	2.20E-03		
EU-13 Standby Generator Hourly Parking Garage (600 kW)	Diesel	225.20	MMBtu	37.40	hr	Acetaldehyde	2.52E-05	lb/MMBtu	1	1.52E-04	2.84E-06	8.87E-05
		225.20	MMBtu	37.40	hr	Acrolein	7.88E-06	lb/MMBtu	1	4.74E-05	8.87E-07	2.77E-05
		225.20	MMBtu	37.40	hr	Arsenic	-	lb/MMBtu	-	-	-	-
		225.20	MMBtu	37.40	hr	Barium	-	lb/MMBtu	-	-	-	-
		225.20	MMBtu	37.40	hr	Benzene	7.76E-04	lb/MMBtu	1	4.67E-03	8.74E-05	2.73E-03
		225.20	MMBtu	37.40	hr	Beryllium	-	lb/MMBtu	-	-	-	-
		225.20	MMBtu	37.40	hr	Cadmium	-	lb/MMBtu	-	-	-	-
		225.20	MMBtu	37.40	hr	Chromium	-	lb/MMBtu	-	-	-	-
		225.20	MMBtu	37.40	hr	Cobalt	-	lb/MMBtu	-	-	-	-
		225.20	MMBtu	37.40	hr	Dichlorobenzene	-	lb/MMBtu	-	-	-	-
		225.20	MMBtu	37.40	hr	Formaldehyde	7.89E-05	lb/MMBtu	1	4.75E-04	8.88E-06	2.78E-04
		225.20	MMBtu	37.40	hr	Hexane	-	lb/MMBtu	-	-	-	-
		225.20	MMBtu	37.40	hr	Manganese	-	lb/MMBtu	-	-	-	-
		225.20	MMBtu	37.40	hr	Mercury	-	lb/MMBtu	-	-	-	-
		225.20	MMBtu	37.40	hr	Naphthalene	1.30E-04	lb/MMBtu	1	7.83E-04	1.46E-05	4.57E-04
		225.20	MMBtu	37.40	hr	Nickel	-	lb/MMBtu	-	-	-	-
		225.20	MMBtu	37.40	hr	Selenium	-	lb/MMBtu	-	-	-	-
225.20	MMBtu	37.40	hr	Toluene	2.81E-04	lb/MMBtu	1	1.69E-03	3.16E-05	9.89E-04		
225.20	MMBtu	37.40	hr	Xylene	1.93E-04	lb/MMBtu	1	1.16E-03	2.17E-05	6.79E-04		
225.20	MMBtu	37.40	hr	POM	2.12E-04	lb/MMBtu	1	1.28E-03	2.39E-05	7.46E-04		

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Source Description and Location	Source Process Material	Annual Process Throughput		Annual Process Duration		HAPS	Emission Factors			Actual Emission Estimates		
		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day
EU-14 Standby Generator Pier A Triturator (500 kW)	Diesel	108.89	MMBtu	21.70	hr	Acetaldehyde	2.52E-05	lb/MMBtu	1	1.26E-04	1.37E-06	4.29E-05
		108.89	MMBtu	21.70	hr	Acrolein	7.88E-06	lb/MMBtu	1	3.95E-05	4.29E-07	1.34E-05
		108.89	MMBtu	21.70	hr	Arsenic	-	lb/MMBtu	-	-	-	-
		108.89	MMBtu	21.70	hr	Barium	-	lb/MMBtu	-	-	-	-
		108.89	MMBtu	21.70	hr	Benzene	7.76E-04	lb/MMBtu	1	3.89E-03	4.22E-05	1.32E-03
		108.89	MMBtu	21.70	hr	Beryllium	-	lb/MMBtu	-	-	-	-
		108.89	MMBtu	21.70	hr	Cadmium	-	lb/MMBtu	-	-	-	-
		108.89	MMBtu	21.70	hr	Chromium	-	lb/MMBtu	-	-	-	-
		108.89	MMBtu	21.70	hr	Cobalt	-	lb/MMBtu	-	-	-	-
		108.89	MMBtu	21.70	hr	Dichlorobenzene	-	lb/MMBtu	-	-	-	-
		108.89	MMBtu	21.70	hr	Formaldehyde	7.89E-05	lb/MMBtu	1	3.96E-04	4.30E-06	1.34E-04
		108.89	MMBtu	21.70	hr	Hexane	-	lb/MMBtu	-	-	-	-
		108.89	MMBtu	21.70	hr	Manganese	-	lb/MMBtu	-	-	-	-
		108.89	MMBtu	21.70	hr	Mercury	-	lb/MMBtu	-	-	-	-
		108.89	MMBtu	21.70	hr	Naphthalene	1.30E-04	lb/MMBtu	1	6.52E-04	7.08E-06	2.21E-04
		108.89	MMBtu	21.70	hr	Nickel	-	lb/MMBtu	-	-	-	-
108.89	MMBtu	21.70	hr	Selenium	-	lb/MMBtu	-	-	-	-		
108.89	MMBtu	21.70	hr	Toluene	2.81E-04	lb/MMBtu	1	1.41E-03	1.53E-05	4.78E-04		
108.89	MMBtu	21.70	hr	Xylene	1.93E-04	lb/MMBtu	1	9.68E-04	1.05E-05	3.28E-04		
108.89	MMBtu	21.70	hr	POM	2.12E-04	lb/MMBtu	1	1.06E-03	1.15E-05	3.61E-04		
EU-15 Standby Generator Intl. Terminal LL (900 kW)	Diesel	325.16	MMBtu	36.00	hr	Acetaldehyde	2.52E-05	lb/MMBtu	1	2.28E-04	4.10E-06	1.28E-04
		325.16	MMBtu	36.00	hr	Acrolein	7.88E-06	lb/MMBtu	1	7.12E-05	1.28E-06	4.00E-05
		325.16	MMBtu	36.00	hr	Arsenic	-	lb/MMBtu	-	-	-	-
		325.16	MMBtu	36.00	hr	Barium	-	lb/MMBtu	-	-	-	-
		325.16	MMBtu	36.00	hr	Benzene	7.76E-04	lb/MMBtu	1	7.01E-03	1.26E-04	3.94E-03
		325.16	MMBtu	36.00	hr	Beryllium	-	lb/MMBtu	-	-	-	-
		325.16	MMBtu	36.00	hr	Cadmium	-	lb/MMBtu	-	-	-	-
		325.16	MMBtu	36.00	hr	Chromium	-	lb/MMBtu	-	-	-	-
		325.16	MMBtu	36.00	hr	Cobalt	-	lb/MMBtu	-	-	-	-
		325.16	MMBtu	36.00	hr	Dichlorobenzene	-	lb/MMBtu	-	-	-	-
		325.16	MMBtu	36.00	hr	Formaldehyde	7.89E-05	lb/MMBtu	1	7.13E-04	1.28E-05	4.01E-04
		325.16	MMBtu	36.00	hr	Hexane	-	lb/MMBtu	-	-	-	-
		325.16	MMBtu	36.00	hr	Manganese	-	lb/MMBtu	-	-	-	-
		325.16	MMBtu	36.00	hr	Mercury	-	lb/MMBtu	-	-	-	-
		325.16	MMBtu	36.00	hr	Naphthalene	1.30E-04	lb/MMBtu	1	1.17E-03	2.11E-05	6.60E-04
		325.16	MMBtu	36.00	hr	Nickel	-	lb/MMBtu	-	-	-	-
325.16	MMBtu	36.00	hr	Selenium	-	lb/MMBtu	-	-	-	-		
325.16	MMBtu	36.00	hr	Toluene	2.81E-04	lb/MMBtu	1	2.54E-03	4.57E-05	1.43E-03		
325.16	MMBtu	36.00	hr	Xylene	1.93E-04	lb/MMBtu	1	1.74E-03	3.14E-05	9.81E-04		
325.16	MMBtu	36.00	hr	POM	2.12E-04	lb/MMBtu	1	1.91E-03	3.45E-05	1.08E-03		
EU-16 Standby Generator Gate C1 (2000 kW)	Diesel	939.14	MMBtu	46.79	hr	Acetaldehyde	2.52E-05	lb/MMBtu	1	5.06E-04	1.18E-05	3.70E-04
		939.14	MMBtu	46.79	hr	Acrolein	7.88E-06	lb/MMBtu	1	1.58E-04	3.70E-06	1.16E-04
		939.14	MMBtu	46.79	hr	Arsenic	-	lb/MMBtu	-	-	-	-
		939.14	MMBtu	46.79	hr	Barium	-	lb/MMBtu	-	-	-	-
		939.14	MMBtu	46.79	hr	Benzene	7.76E-04	lb/MMBtu	1	1.56E-02	3.64E-04	1.14E-02
		939.14	MMBtu	46.79	hr	Beryllium	-	lb/MMBtu	-	-	-	-
		939.14	MMBtu	46.79	hr	Cadmium	-	lb/MMBtu	-	-	-	-
		939.14	MMBtu	46.79	hr	Chromium	-	lb/MMBtu	-	-	-	-
		939.14	MMBtu	46.79	hr	Cobalt	-	lb/MMBtu	-	-	-	-
		939.14	MMBtu	46.79	hr	Dichlorobenzene	-	lb/MMBtu	-	-	-	-
		939.14	MMBtu	46.79	hr	Formaldehyde	7.89E-05	lb/MMBtu	1	1.58E-03	3.70E-05	1.16E-03
		939.14	MMBtu	46.79	hr	Hexane	-	lb/MMBtu	-	-	-	-
		939.14	MMBtu	46.79	hr	Manganese	-	lb/MMBtu	-	-	-	-
		939.14	MMBtu	46.79	hr	Mercury	-	lb/MMBtu	-	-	-	-
		939.14	MMBtu	46.79	hr	Naphthalene	1.30E-04	lb/MMBtu	1	2.61E-03	6.10E-05	1.91E-03
		939.14	MMBtu	46.79	hr	Nickel	-	lb/MMBtu	-	-	-	-
939.14	MMBtu	46.79	hr	Selenium	-	lb/MMBtu	-	-	-	-		
939.14	MMBtu	46.79	hr	Toluene	2.81E-04	lb/MMBtu	1	5.64E-03	1.32E-04	4.12E-03		
939.14	MMBtu	46.79	hr	Xylene	1.93E-04	lb/MMBtu	1	3.87E-03	9.06E-05	2.83E-03		
939.14	MMBtu	46.79	hr	POM	2.12E-04	lb/MMBtu	1	4.26E-03	9.95E-05	3.11E-03		

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		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day
EU-17 Standby Generator Mobile CUP (2000 kW)	Diesel	120.43	MMBtu	6.00	hr	Acetaldehyde	2.52E-05	lb/MMBtu	1	5.06E-04	1.52E-06	5.06E-04
		120.43	MMBtu	6.00	hr	Acrolein	7.88E-06	lb/MMBtu	1	1.58E-04	4.74E-07	1.58E-04
		120.43	MMBtu	6.00	hr	Arsenic	-	lb/MMBtu	-	-	-	-
		120.43	MMBtu	6.00	hr	Barium	-	lb/MMBtu	-	-	-	-
		120.43	MMBtu	6.00	hr	Benzene	7.76E-04	lb/MMBtu	1	1.56E-02	4.67E-05	1.56E-02
		120.43	MMBtu	6.00	hr	Beryllium	-	lb/MMBtu	-	-	-	-
		120.43	MMBtu	6.00	hr	Cadmium	-	lb/MMBtu	-	-	-	-
		120.43	MMBtu	6.00	hr	Chromium	-	lb/MMBtu	-	-	-	-
		120.43	MMBtu	6.00	hr	Cobalt	-	lb/MMBtu	-	-	-	-
		120.43	MMBtu	6.00	hr	Dichlorobenzene	-	lb/MMBtu	-	-	-	-
		120.43	MMBtu	6.00	hr	Formaldehyde	7.89E-05	lb/MMBtu	1	1.58E-03	4.75E-06	1.58E-03
		120.43	MMBtu	6.00	hr	Hexane	-	lb/MMBtu	-	-	-	-
		120.43	MMBtu	6.00	hr	Manganese	-	lb/MMBtu	-	-	-	-
		120.43	MMBtu	6.00	hr	Mercury	-	lb/MMBtu	-	-	-	-
		120.43	MMBtu	6.00	hr	Naphthalene	1.30E-04	lb/MMBtu	1	2.61E-03	7.83E-06	2.61E-03
		120.43	MMBtu	6.00	hr	Nickel	-	lb/MMBtu	-	-	-	-
120.43	MMBtu	6.00	hr	Selenium	-	lb/MMBtu	-	-	-	-		
120.43	MMBtu	6.00	hr	Toluene	2.81E-04	lb/MMBtu	1	5.64E-03	1.69E-05	5.64E-03		
120.43	MMBtu	6.00	hr	Xylene	1.93E-04	lb/MMBtu	1	3.87E-03	1.16E-05	3.87E-03		
120.43	MMBtu	6.00	hr	POM	2.12E-04	lb/MMBtu	1	4.26E-03	1.28E-05	4.26E-03		
EU-18 Standby Generator Gate C2 (900 kW)	Diesel	338.80	MMBtu	37.51	hr	Acetaldehyde	2.52E-05	lb/MMBtu	1	2.28E-04	4.27E-06	1.33E-04
		338.80	MMBtu	37.51	hr	Acrolein	7.88E-06	lb/MMBtu	1	7.12E-05	1.33E-06	4.17E-05
		338.80	MMBtu	37.51	hr	Arsenic	-	lb/MMBtu	-	-	-	-
		338.80	MMBtu	37.51	hr	Barium	-	lb/MMBtu	-	-	-	-
		338.80	MMBtu	37.51	hr	Benzene	7.76E-04	lb/MMBtu	1	7.01E-03	1.31E-04	4.11E-03
		338.80	MMBtu	37.51	hr	Beryllium	-	lb/MMBtu	-	-	-	-
		338.80	MMBtu	37.51	hr	Cadmium	-	lb/MMBtu	-	-	-	-
		338.80	MMBtu	37.51	hr	Chromium	-	lb/MMBtu	-	-	-	-
		338.80	MMBtu	37.51	hr	Cobalt	-	lb/MMBtu	-	-	-	-
		338.80	MMBtu	37.51	hr	Dichlorobenzene	-	lb/MMBtu	-	-	-	-
		338.80	MMBtu	37.51	hr	Formaldehyde	7.89E-05	lb/MMBtu	1	7.13E-04	1.34E-05	4.18E-04
		338.80	MMBtu	37.51	hr	Hexane	-	lb/MMBtu	-	-	-	-
		338.80	MMBtu	37.51	hr	Manganese	-	lb/MMBtu	-	-	-	-
		338.80	MMBtu	37.51	hr	Mercury	-	lb/MMBtu	-	-	-	-
		338.80	MMBtu	37.51	hr	Naphthalene	1.30E-04	lb/MMBtu	1	1.17E-03	2.20E-05	6.88E-04
		338.80	MMBtu	37.51	hr	Nickel	-	lb/MMBtu	-	-	-	-
338.80	MMBtu	37.51	hr	Selenium	-	lb/MMBtu	-	-	-	-		
338.80	MMBtu	37.51	hr	Toluene	2.81E-04	lb/MMBtu	1	2.54E-03	4.76E-05	1.49E-03		
338.80	MMBtu	37.51	hr	Xylene	1.93E-04	lb/MMBtu	1	1.74E-03	3.27E-05	1.02E-03		
338.80	MMBtu	37.51	hr	POM	2.12E-04	lb/MMBtu	1	1.91E-03	3.59E-05	1.12E-03		
EU-7 Gasoline Storage Tank Field Maintenance Building 116 (8000 gal)	Gasoline	142,366.34	gal	-	-	Acetaldehyde	-	-	-	-	-	-
		142,366.34	gal	-	-	Acrolein	-	-	-	-	-	-
		142,366.34	gal	-	-	Arsenic	-	-	-	-	-	-
		142,366.34	gal	-	-	Barium	-	-	-	-	-	-
		142,366.34	gal	-	-	Benzene	-	-	-	-	-	-
		142,366.34	gal	-	-	Beryllium	-	-	-	-	-	-
		142,366.34	gal	-	-	Cadmium	-	-	-	-	-	-
		142,366.34	gal	-	-	Chromium	-	-	-	-	-	-
		142,366.34	gal	-	-	Cobalt	-	-	-	-	-	-
		142,366.34	gal	-	-	Dichlorobenzene	-	-	-	-	-	-
		142,366.34	gal	-	-	Formaldehyde	-	-	-	-	-	-
		142,366.34	gal	-	-	Hexane	-	-	-	-	-	-
		142,366.34	gal	-	-	Manganese	-	-	-	-	-	-
		142,366.34	gal	-	-	Mercury	-	-	-	-	-	-
		142,366.34	gal	-	-	Naphthalene	-	-	-	-	-	-
		142,366.34	gal	-	-	Nickel	-	-	-	-	-	-
142,366.34	gal	-	-	Selenium	-	-	-	-	-	-		
142,366.34	gal	-	-	Toluene	-	-	-	-	-	-		
142,366.34	gal	-	-	Xylene	-	-	-	-	-	-		
142,366.34	gal	-	-	POM	-	-	-	-	-	-		

There are no published HAP emission factors.

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Source Description and Location	Source Process Material	Annual Process Throughput		Annual Process Duration		HAPS	Emission Factors			Actual Emission Estimates		
		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day
EU-8 Training Fires	Jet-A (JP-8)	28,837.50	gal	-	-	Acetaldehyde	-	-	-	-	-	-
		28,837.50	gal	-	-	Acrolein	-	-	-	-	-	-
		28,837.50	gal	-	-	Arsenic	-	-	-	-	-	-
		28,837.50	gal	-	-	Barium	-	-	-	-	-	-
		28,837.50	gal	-	-	Benzene	-	-	-	-	-	-
		28,837.50	gal	-	-	Beryllium	-	-	-	-	-	-
		28,837.50	gal	-	-	Cadmium	-	-	-	-	-	-
		28,837.50	gal	-	-	Chromium	-	-	-	-	-	-
		28,837.50	gal	-	-	Cobalt	-	-	-	-	-	-
		28,837.50	gal	-	-	Dichlorobenzene	-	-	-	-	-	-
		28,837.50	gal	-	-	Formaldehyde	-	-	-	-	-	-
		28,837.50	gal	-	-	Hexane	-	-	-	-	-	-
		28,837.50	gal	-	-	Manganese	-	-	-	-	-	-
		28,837.50	gal	-	-	Mercury	-	-	-	-	-	-
		28,837.50	gal	-	-	Naphthalene	-	-	-	-	-	-
		28,837.50	gal	-	-	Nickel	-	-	-	-	-	-
		28,837.50	gal	-	-	Selenium	-	-	-	-	-	-
		28,837.50	gal	-	-	Toluene	-	-	-	-	-	-
28,837.50	gal	-	-	Xylene	-	-	-	-	-	-		
28,837.50	gal	-	-	POM	-	-	-	-	-	-		
EU-28 LSC Boiler (1.969 MMBtu/hr)	Natural Gas	2.49	MMcf	1,290.91	hr	Acetaldehyde	-	lb/MMcf	-	-	-	-
		2.49	MMcf	1,290.91	hr	Acrolein	-	lb/MMcf	-	-	-	-
		2.49	MMcf	1,290.91	hr	Arsenic	2.00E-04	lb/MMcf	1	3.86E-07	2.49E-07	9.23E-06
		2.49	MMcf	1,290.91	hr	Barium	4.40E-03	lb/MMcf	1	8.49E-06	5.48E-06	2.03E-04
		2.49	MMcf	1,290.91	hr	Benzene	2.10E-03	lb/MMcf	1	4.05E-06	2.62E-06	9.69E-05
		2.49	MMcf	1,290.91	hr	Beryllium	1.20E-05	lb/MMcf	1	2.32E-08	1.50E-08	5.54E-07
		2.49	MMcf	1,290.91	hr	Cadmium	1.10E-03	lb/MMcf	1	2.12E-06	1.37E-06	5.08E-05
		2.49	MMcf	1,290.91	hr	Chromium	1.40E-03	lb/MMcf	1	2.70E-06	1.74E-06	6.46E-05
		2.49	MMcf	1,290.91	hr	Cobalt	8.40E-05	lb/MMcf	1	1.62E-07	1.05E-07	3.88E-06
		2.49	MMcf	1,290.91	hr	Dichlorobenzene	1.20E-03	lb/MMcf	5	2.32E-06	1.50E-06	5.54E-05
		2.49	MMcf	1,290.91	hr	Formaldehyde	7.50E-02	lb/MMcf	1	1.45E-04	9.34E-05	3.46E-03
		2.49	MMcf	1,290.91	hr	Hexane	1.80E+00	lb/MMcf	1	3.47E-03	2.24E-03	8.31E-02
		2.49	MMcf	1,290.91	hr	Manganese	3.80E-04	lb/MMcf	1	7.34E-07	4.73E-07	1.75E-05
		2.49	MMcf	1,290.91	hr	Mercury	2.60E-04	lb/MMcf	1	5.02E-07	3.24E-07	1.20E-05
		2.49	MMcf	1,290.91	hr	Naphthalene	6.10E-04	lb/MMcf	1	1.18E-06	7.60E-07	2.81E-05
		2.49	MMcf	1,290.91	hr	Nickel	2.10E-03	lb/MMcf	1	4.05E-06	2.62E-06	9.69E-05
		2.49	MMcf	1,290.91	hr	Selenium	2.40E-05	lb/MMcf	1	4.63E-08	2.99E-08	1.11E-06
		2.49	MMcf	1,290.91	hr	Toluene	3.40E-03	lb/MMcf	1	6.56E-06	4.24E-06	1.57E-04
2.49	MMcf	1,290.91	hr	Xylene	-	lb/MMcf	-	-	-	-		
2.49	MMcf	1,290.91	hr	POM	8.82E-05	lb/MMcf	1	1.70E-07	1.10E-07	4.07E-06		
EU-29 Standby Generator OMU (750 kW)	Diesel	60.36	MMBtu	8.02	hr	Acetaldehyde	2.52E-05	lb/MMBtu	1	1.90E-04	7.61E-07	2.54E-04
		60.36	MMBtu	8.02	hr	Acrolein	7.88E-06	lb/MMBtu	1	5.93E-05	2.38E-07	7.93E-05
		60.36	MMBtu	8.02	hr	Arsenic	-	lb/MMBtu	-	-	-	-
		60.36	MMBtu	8.02	hr	Barium	-	lb/MMBtu	-	-	-	-
		60.36	MMBtu	8.02	hr	Benzene	7.76E-04	lb/MMBtu	1	5.84E-03	2.34E-05	7.81E-03
		60.36	MMBtu	8.02	hr	Beryllium	-	lb/MMBtu	-	-	-	-
		60.36	MMBtu	8.02	hr	Cadmium	-	lb/MMBtu	-	-	-	-
		60.36	MMBtu	8.02	hr	Chromium	-	lb/MMBtu	-	-	-	-
		60.36	MMBtu	8.02	hr	Cobalt	-	lb/MMBtu	-	-	-	-
		60.36	MMBtu	8.02	hr	Dichlorobenzene	-	lb/MMBtu	-	-	-	-
		60.36	MMBtu	8.02	hr	Formaldehyde	7.89E-05	lb/MMBtu	1	5.94E-04	2.38E-06	7.94E-04
		60.36	MMBtu	8.02	hr	Hexane	-	lb/MMBtu	-	-	-	-
		60.36	MMBtu	8.02	hr	Manganese	-	lb/MMBtu	-	-	-	-
		60.36	MMBtu	8.02	hr	Mercury	-	lb/MMBtu	-	-	-	-
		60.36	MMBtu	8.02	hr	Naphthalene	1.30E-04	lb/MMBtu	1	9.78E-04	3.92E-06	1.31E-03
		60.36	MMBtu	8.02	hr	Nickel	-	lb/MMBtu	-	-	-	-
		60.36	MMBtu	8.02	hr	Selenium	-	lb/MMBtu	-	-	-	-
		60.36	MMBtu	8.02	hr	Toluene	2.81E-04	lb/MMBtu	1	2.12E-03	8.48E-06	2.83E-03
60.36	MMBtu	8.02	hr	Xylene	1.93E-04	lb/MMBtu	1	1.45E-03	5.83E-06	1.94E-03		
60.36	MMBtu	8.02	hr	POM	2.12E-04	lb/MMBtu	1	1.60E-03	6.40E-06	2.13E-03		

Baltimore Washington International (BWI) Thurgood Marshall Airport
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 Hazardous Air Pollutants

Source Description and Location	Source Process Material	Annual Process Throughput		Annual Process Duration		HAPS	Emission Factors			Actual Emission Estimates		
		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day
EU-30 ARFF Building Heater (1.65 MMBtu/hr)	Natural Gas	1.82	MMcf	1,123.92	hr	Acetaldehyde	-	lb/MMcf	-	-	-	-
		1.82	MMcf	1,123.92	hr	Acrolein	-	lb/MMcf	-	-	-	-
		1.82	MMcf	1,123.92	hr	Arsenic	2.00E-04	lb/MMcf	1	3.24E-07	1.82E-07	7.74E-06
		1.82	MMcf	1,123.92	hr	Barium	4.40E-03	lb/MMcf	1	7.12E-06	4.00E-06	1.70E-04
		1.82	MMcf	1,123.92	hr	Benzene	2.10E-03	lb/MMcf	1	3.40E-06	1.91E-06	8.12E-05
		1.82	MMcf	1,123.92	hr	Beryllium	1.20E-05	lb/MMcf	1	1.94E-08	1.09E-08	4.64E-07
		1.82	MMcf	1,123.92	hr	Cadmium	1.10E-03	lb/MMcf	1	1.78E-06	1.00E-06	4.26E-05
		1.82	MMcf	1,123.92	hr	Chromium	1.40E-03	lb/MMcf	1	2.26E-06	1.27E-06	5.42E-05
		1.82	MMcf	1,123.92	hr	Cobalt	8.40E-05	lb/MMcf	1	1.36E-07	7.64E-08	3.25E-06
		1.82	MMcf	1,123.92	hr	Dichlorobenzene	1.20E-03	lb/MMcf	1	1.94E-06	1.09E-06	4.64E-05
		1.82	MMcf	1,123.92	hr	Formaldehyde	7.50E-02	lb/MMcf	1	1.21E-04	6.82E-05	2.90E-03
		1.82	MMcf	1,123.92	hr	Hexane	1.80E+00	lb/MMcf	1	2.91E-03	1.64E-03	6.96E-02
		1.82	MMcf	1,123.92	hr	Manganese	3.80E-04	lb/MMcf	1	6.15E-07	3.45E-07	1.47E-05
		1.82	MMcf	1,123.92	hr	Mercury	2.60E-04	lb/MMcf	1	4.21E-07	2.36E-07	1.01E-05
		1.82	MMcf	1,123.92	hr	Naphthalene	6.10E-04	lb/MMcf	1	9.87E-07	5.55E-07	2.36E-05
		1.82	MMcf	1,123.92	hr	Nickel	2.10E-03	lb/MMcf	1	3.40E-06	1.91E-06	8.12E-05
1.82	MMcf	1,123.92	hr	Selenium	2.40E-05	lb/MMcf	1	3.88E-08	2.18E-08	9.28E-07		
1.82	MMcf	1,123.92	hr	Toluene	3.40E-03	lb/MMcf	1	5.50E-06	3.09E-06	1.32E-04		
1.82	MMcf	1,123.92	hr	Xylene	-	lb/MMcf	-	-	-	-	-	
1.82	MMcf	1,123.92	hr	POM	8.82E-05	lb/MMcf	1	1.43E-07	8.02E-08	3.41E-06		
EU-32 Temporary Generator (1000 kW)	Diesel	0.00	MMBtu	0.00	hr	Acetaldehyde	2.52E-05	lb/MMBtu	1	-	-	-
		0.00	MMBtu	0.00	hr	Acrolein	7.88E-06	lb/MMBtu	1	-	-	-
		0.00	MMBtu	0.00	hr	Arsenic	-	lb/MMBtu	-	-	-	-
		0.00	MMBtu	0.00	hr	Barium	-	lb/MMBtu	-	-	-	-
		0.00	MMBtu	0.00	hr	Benzene	7.76E-04	lb/MMBtu	1	-	-	-
		0.00	MMBtu	0.00	hr	Beryllium	-	lb/MMBtu	-	-	-	-
		0.00	MMBtu	0.00	hr	Cadmium	-	lb/MMBtu	-	-	-	-
		0.00	MMBtu	0.00	hr	Chromium	-	lb/MMBtu	-	-	-	-
		0.00	MMBtu	0.00	hr	Cobalt	-	lb/MMBtu	-	-	-	-
		0.00	MMBtu	0.00	hr	Dichlorobenzene	-	lb/MMBtu	-	-	-	-
		0.00	MMBtu	0.00	hr	Formaldehyde	7.89E-05	lb/MMBtu	1	-	-	-
		0.00	MMBtu	0.00	hr	Hexane	-	lb/MMBtu	-	-	-	-
		0.00	MMBtu	0.00	hr	Manganese	-	lb/MMBtu	-	-	-	-
		0.00	MMBtu	0.00	hr	Mercury	-	lb/MMBtu	-	-	-	-
		0.00	MMBtu	0.00	hr	Naphthalene	1.30E-04	lb/MMBtu	1	-	-	-
		0.00	MMBtu	0.00	hr	Nickel	-	lb/MMBtu	-	-	-	-
0.00	MMBtu	0.00	hr	Selenium	-	lb/MMBtu	-	-	-	-		
0.00	MMBtu	0.00	hr	Toluene	2.81E-04	lb/MMBtu	1	-	-	-		
0.00	MMBtu	0.00	hr	Xylene	1.93E-04	lb/MMBtu	1	-	-	-		
0.00	MMBtu	0.00	hr	POM	2.12E-04	lb/MMBtu	1	-	-	-		
D-Pier Boiler 1 (3.00 MMBtu/hr)	Natural Gas	3.51	MMcf	1,193.46	hr	Acetaldehyde	-	lb/MMcf	-	-	-	-
		3.51	MMcf	1,193.46	hr	Acrolein	-	lb/MMcf	-	-	-	-
		3.51	MMcf	1,193.46	hr	Arsenic	2.00E-04	lb/MMcf	1	5.88E-07	3.51E-07	1.40E-05
		3.51	MMcf	1,193.46	hr	Barium	4.40E-03	lb/MMcf	1	1.29E-05	7.72E-06	3.09E-04
		3.51	MMcf	1,193.46	hr	Benzene	2.10E-03	lb/MMcf	1	6.18E-06	3.69E-06	1.47E-04
		3.51	MMcf	1,193.46	hr	Beryllium	1.20E-05	lb/MMcf	1	3.53E-08	2.11E-08	8.42E-07
		3.51	MMcf	1,193.46	hr	Cadmium	1.10E-03	lb/MMcf	1	3.24E-06	1.93E-06	7.72E-05
		3.51	MMcf	1,193.46	hr	Chromium	1.40E-03	lb/MMcf	1	4.12E-06	2.46E-06	9.83E-05
		3.51	MMcf	1,193.46	hr	Cobalt	8.40E-05	lb/MMcf	1	2.47E-07	1.47E-07	5.90E-06
		3.51	MMcf	1,193.46	hr	Dichlorobenzene	1.20E-03	lb/MMcf	1	3.53E-06	2.11E-06	8.42E-05
		3.51	MMcf	1,193.46	hr	Formaldehyde	7.50E-02	lb/MMcf	1	2.21E-04	1.32E-04	5.27E-03
		3.51	MMcf	1,193.46	hr	Hexane	1.80E+00	lb/MMcf	1	5.29E-03	3.16E-03	1.26E-01
		3.51	MMcf	1,193.46	hr	Manganese	3.80E-04	lb/MMcf	1	1.12E-06	6.67E-07	2.67E-05
		3.51	MMcf	1,193.46	hr	Mercury	2.60E-04	lb/MMcf	1	7.65E-07	4.56E-07	1.83E-05
		3.51	MMcf	1,193.46	hr	Naphthalene	6.10E-04	lb/MMcf	1	1.79E-06	1.07E-06	4.28E-05
		3.51	MMcf	1,193.46	hr	Nickel	2.10E-03	lb/MMcf	1	6.18E-06	3.69E-06	1.47E-04
		3.51	MMcf	1,193.46	hr	Selenium	2.40E-05	lb/MMcf	1	7.06E-08	4.21E-08	1.68E-06
		3.51	MMcf	1,193.46	hr	Toluene	3.40E-03	lb/MMcf	1	1.00E-05	5.97E-06	2.39E-04
		3.51	MMcf	1,193.46	hr	Xylene	-	lb/MMcf	-	-	-	-
3.51	MMcf	1,193.46	hr	POM	8.82E-05	lb/MMcf	1	2.59E-07	1.55E-07	6.19E-06		

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 Hazardous Air Pollutants

Source Description and Location	Source Process Material	Annual Process Throughput		Annual Process Duration		HAPS	Emission Factors			Actual Emission Estimates		
		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day
D-Pier Boiler 2 (3.00 MMBtu/hr)	Natural Gas	3.51	MMcf	1,193.46	hr	Acetaldehyde	-	lb/MMcf	-	-	-	-
		3.51	MMcf	1,193.46	hr	Acrolein	-	lb/MMcf	-	-	-	-
		3.51	MMcf	1,193.46	hr	Arsenic	2.00E-04	lb/MMcf	1	5.88E-07	3.51E-07	1.40E-05
		3.51	MMcf	1,193.46	hr	Barium	4.40E-03	lb/MMcf	1	1.29E-05	7.72E-06	3.09E-04
		3.51	MMcf	1,193.46	hr	Benzene	2.10E-03	lb/MMcf	1	6.18E-06	3.69E-06	1.47E-04
		3.51	MMcf	1,193.46	hr	Beryllium	1.20E-05	lb/MMcf	1	3.53E-08	2.11E-08	8.42E-07
		3.51	MMcf	1,193.46	hr	Cadmium	1.10E-03	lb/MMcf	1	3.24E-06	1.93E-06	7.72E-05
		3.51	MMcf	1,193.46	hr	Chromium	1.40E-03	lb/MMcf	1	4.12E-06	2.46E-06	9.83E-05
		3.51	MMcf	1,193.46	hr	Cobalt	8.40E-05	lb/MMcf	1	2.47E-07	1.47E-07	5.90E-06
		3.51	MMcf	1,193.46	hr	Dichlorobenzene	1.20E-03	lb/MMcf	1	3.53E-06	2.11E-06	8.42E-05
		3.51	MMcf	1,193.46	hr	Formaldehyde	7.50E-02	lb/MMcf	1	2.21E-04	1.32E-04	5.27E-03
		3.51	MMcf	1,193.46	hr	Hexane	1.80E+00	lb/MMcf	1	5.29E-03	3.16E-03	1.26E-01
		3.51	MMcf	1,193.46	hr	Manganese	3.80E-04	lb/MMcf	1	1.12E-06	6.67E-07	2.67E-05
		3.51	MMcf	1,193.46	hr	Mercury	2.60E-04	lb/MMcf	1	7.65E-07	4.56E-07	1.83E-05
		3.51	MMcf	1,193.46	hr	Naphthalene	6.10E-04	lb/MMcf	1	1.79E-06	1.07E-06	4.28E-05
		3.51	MMcf	1,193.46	hr	Nickel	2.10E-03	lb/MMcf	1	6.18E-06	3.69E-06	1.47E-04
		3.51	MMcf	1,193.46	hr	Selenium	2.40E-05	lb/MMcf	1	7.06E-08	4.21E-08	1.68E-06
		3.51	MMcf	1,193.46	hr	Toluene	3.40E-03	lb/MMcf	1	1.00E-05	5.97E-06	2.39E-04
3.51	MMcf	1,193.46	hr	Xylene	-	lb/MMcf	-	-	-	-		
3.51	MMcf	1,193.46	hr	POM	8.82E-05	lb/MMcf	1	2.59E-07	1.55E-07	6.19E-06		

Notes:

Emission Factor Sources

1 - AP-42 Chapter 1.4 Natural gas combustion

AP-42 Chapter 1.3 Fuel oil combustion

AP-42 Chapter 3.3 Gasoline and diesel industrial engines (Table 3.3-1)

AP-42 Chapter 3.4 Large stationary diesel and all stationary dual-fuel engines (Tables 3.4-1, 3.4-2)

For boilers, emissions are based on reported fuel usage.

Fuel consumption of the boilers is based on natural gas higher heating value of 1,020 Btu/scf (AP-42 Table 1.4-1)

Generators energy throughput (MMBtu/hr) is based on diesel average heating value of 140,000 Btu/gal (AP-42)

Conversion factors: 1 scf = 7.48 gal

Sulfur content of diesel: 0.0015%

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 Greenhouse Gases

Source Description and Location	Source Process Material	Annual Process Throughput		Annual Process Duration		Criteria Pollutant	Emission Factors			Actual Emission Estimates		
		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day
EU-1 CUP Boiler #1 (55 MMBtu/hr)	Natural Gas	45.94	MMcf	851.93	hr	CO ₂	120,019	lb/MMcf	1	6.47E+03	2.76E+03	1.53E+05
		45.94	MMcf	851.93	hr	N ₂ O	0.23	lb/MMcf	2	1.22E-02	5.20E-03	2.89E-01
		45.94	MMcf	851.93	hr	CH ₄	2.3	lb/MMcf	2	1.22E-01	5.20E-02	2.89E+00
	No. 2 Distillate	0.96	1000 gal	2.45	hr	CO ₂	22,502	lb/1000 gal	1	8.84E+03	1.08E+01	2.16E+04
		0.96	1000 gal	2.45	hr	N ₂ O	0.183	lb/1000 gal	2	7.17E-02	8.78E-05	1.76E-01
		0.96	1000 gal	2.45	hr	CH ₄	0.913	lb/1000 gal	2	3.59E-01	4.39E-04	8.78E-01
EU-2 CUP Boiler #2 (55 MMBtu/hr)	Natural Gas	45.94	MMcf	851.93	hr	CO ₂	120,019	lb/MMcf	1	6.47E+03	2.76E+03	1.53E+05
		45.94	MMcf	851.93	hr	N ₂ O	0.226195	lb/MMcf	2	1.22E-02	5.20E-03	2.89E-01
		45.94	MMcf	851.93	hr	CH ₄	2.261955	lb/MMcf	2	1.22E-01	5.20E-02	2.89E+00
	No. 2 Distillate	0.96	1000 gal	2.45	hr	CO ₂	22,502	lb/1000 gal	1	8.84E+03	1.08E+01	2.16E+04
		0.96	1000 gal	2.45	hr	N ₂ O	0.182544	lb/1000 gal	2	7.17E-02	8.78E-05	1.76E-01
		0.96	1000 gal	2.45	hr	CH ₄	0.912719	lb/1000 gal	2	3.59E-01	4.39E-04	8.78E-01
EU-3 CUP Boiler #3 (25 MMBtu/hr)	Natural Gas	20.88	MMcf	851.93	hr	CO ₂	120,019	lb/MMcf	1	2.94E+03	1.25E+03	6.96E+04
		20.88	MMcf	851.93	hr	N ₂ O	0.226195	lb/MMcf	2	5.54E-03	2.36E-03	1.31E-01
		20.88	MMcf	851.93	hr	CH ₄	2.261955	lb/MMcf	2	5.54E-02	2.36E-02	1.31E+00
	No. 2 Distillate	0.44	1000 gal	2.45	hr	CO ₂	22,502	lb/1000 gal	1	4.02E+03	4.92E+00	9.84E+03
		0.44	1000 gal	2.45	hr	N ₂ O	0.182544	lb/1000 gal	2	3.26E-02	3.99E-05	7.98E-02
		0.44	1000 gal	2.45	hr	CH ₄	0.912719	lb/1000 gal	2	1.63E-01	2.00E-04	3.99E-01
EU-31 Building 123 Boiler (3.22 MMBtu/hr)	No. 2 Distillate	9.37	1000 gal	407.57	hr	CO ₂	22,502	lb/1000 gal	1	5.18E+02	1.05E+02	1.24E+04
		9.37	1000 gal	407.57	hr	N ₂ O	0.182544	lb/1000 gal	2	4.20E-03	8.56E-04	1.01E-01
		9.37	1000 gal	407.57	hr	CH ₄	0.912719	lb/1000 gal	2	2.10E-02	4.28E-03	5.03E-01
EU-19 Boiler #1 - Concourse E (1.99 MMBtu/hr)	Natural Gas	0.00	MMcf	0.40	hr	CO ₂	120,019	lb/MMcf	1	2.34E+02	4.71E-02	9.41E+01
		0.00	MMcf	0.40	hr	N ₂ O	0.226195	lb/MMcf	2	4.41E-04	8.87E-08	1.77E-04
		0.00	MMcf	0.40	hr	CH ₄	2.261955	lb/MMcf	2	4.41E-03	8.87E-07	1.77E-03
EU-20 Boilers #2 - Concourse E (1.99 MMBtu/hr)	Natural Gas	0.00	MMcf	0.40	hr	CO ₂	120,019	lb/MMcf	1	2.34E+02	4.71E-02	9.41E+01
		0.00	MMcf	0.40	hr	N ₂ O	0.226195	lb/MMcf	2	4.41E-04	8.87E-08	1.77E-04
		0.00	MMcf	0.40	hr	CH ₄	2.261955	lb/MMcf	2	4.41E-03	8.87E-07	1.77E-03
EU-23 Boiler #1 - Concourse B (3.0 MMBtu/hr)	Natural Gas	6.59	MMcf	2,241.20	hr	CO ₂	120,019	lb/MMcf	1	3.53E+02	3.96E+02	8.42E+03
		6.59	MMcf	2,241.20	hr	N ₂ O	0.226195	lb/MMcf	2	6.65E-04	7.46E-04	1.59E-02
		6.59	MMcf	2,241.20	hr	CH ₄	2.261955	lb/MMcf	2	6.65E-03	7.46E-03	1.59E-01
EU-24 Boiler #2 - Concourse B (3.0 MMBtu/hr)	Natural Gas	6.59	MMcf	2,241.20	hr	CO ₂	120,019	lb/MMcf	1	3.53E+02	3.96E+02	8.42E+03
		6.59	MMcf	2,241.20	hr	N ₂ O	0.226195	lb/MMcf	2	6.65E-04	7.46E-04	1.59E-02
		6.59	MMcf	2,241.20	hr	CH ₄	2.261955	lb/MMcf	2	6.65E-03	7.46E-03	1.59E-01
EU-25 Boiler #3 - Concourse B (3.0 MMBtu/hr)	Natural Gas	6.59	MMcf	2,241.20	hr	CO ₂	120,019	lb/MMcf	1	3.53E+02	3.96E+02	8.42E+03
		6.59	MMcf	2,241.20	hr	N ₂ O	0.226195	lb/MMcf	2	6.65E-04	7.46E-04	1.59E-02
		6.59	MMcf	2,241.20	hr	CH ₄	2.261955	lb/MMcf	2	6.65E-03	7.46E-03	1.59E-01
EU-26 Boiler #4 - Concourse B (3.0 MMBtu/hr)	Natural Gas	6.59	MMcf	2,241.20	hr	CO ₂	120,019	lb/MMcf	1	3.53E+02	3.96E+02	8.42E+03
		6.59	MMcf	2,241.20	hr	N ₂ O	0.226195	lb/MMcf	2	6.65E-04	7.46E-04	1.59E-02
		6.59	MMcf	2,241.20	hr	CH ₄	2.261955	lb/MMcf	2	6.65E-03	7.46E-03	1.59E-01
EU-27 ARFF Building (#105) Boiler (1.0 MMBtu/hr)	Natural Gas	1.10	MMcf	1,123.92	hr	CO ₂	120,019	lb/MMcf	1	1.18E+02	6.61E+01	2.81E+03
		1.10	MMcf	1,123.92	hr	N ₂ O	0.226195	lb/MMcf	2	2.22E-04	1.25E-04	5.30E-03
		1.10	MMcf	1,123.92	hr	CH ₄	2.261955	lb/MMcf	2	2.22E-03	1.25E-03	5.30E-02
EU-4 Standby Generator Pier D Front of Terminal (505 kW)	Diesel	251.37	MMBtu	49.60	hr	CO ₂	163.1	lb/MMBtu	1	8.26E+02	2.05E+01	6.40E+02
		251.37	MMBtu	49.60	hr	N ₂ O	0.0013	lb/MMBtu	2	6.70E-03	1.66E-04	5.20E-03
		251.37	MMBtu	49.60	hr	CH ₄	0.0066	lb/MMBtu	2	3.35E-02	8.31E-04	2.60E-02

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Source Description and Location	Source Process Material	Annual Process Throughput		Annual Process Duration		Criteria Pollutant	Emission Factors			Actual Emission Estimates		
		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day
EU-5 Standby Generator Daily Parking Garage (750 kW)	Diesel	331.18	MMBtu	44.00	hr	CO ₂	163.0547	lb/MMBtu	1	1.23E+03	2.70E+01	8.44E+02
		331.18	MMBtu	44.00	hr	N ₂ O	0.0013	lb/MMBtu	2	9.96E-03	2.19E-04	6.84E-03
		331.18	MMBtu	44.00	hr	CH ₄	0.006614	lb/MMBtu	2	4.98E-02	1.10E-03	3.42E-02
EU-6 Standby Generator Pier A (900 kW)	Diesel	379.35	MMBtu	42.00	hr	CO ₂	163.0547	lb/MMBtu	1	1.47E+03	3.09E+01	9.66E+02
		379.35	MMBtu	42.00	hr	N ₂ O	0.0013	lb/MMBtu	2	1.19E-02	2.51E-04	7.84E-03
		379.35	MMBtu	42.00	hr	CH ₄	0.006614	lb/MMBtu	2	5.97E-02	1.25E-03	3.92E-02
EU-10 Standby Generator International Terminal Roof	Diesel	349.24	MMBtu	58.00	hr	CO ₂	163.0547	lb/MMBtu	1	9.82E+02	2.85E+01	8.90E+02
		349.24	MMBtu	58.00	hr	N ₂ O	0.0013	lb/MMBtu	2	7.97E-03	2.31E-04	7.22E-03
		349.24	MMBtu	58.00	hr	CH ₄	0.006614	lb/MMBtu	2	3.98E-02	1.15E-03	3.61E-02
EU-11 Standby Generator MAC Building (410 kW)	Diesel	175.28	MMBtu	42.60	hr	CO ₂	163.0547	lb/MMBtu	1	6.71E+02	1.43E+01	4.47E+02
		175.28	MMBtu	42.60	hr	N ₂ O	0.0013	lb/MMBtu	2	5.44E-03	1.16E-04	3.62E-03
		175.28	MMBtu	42.60	hr	CH ₄	0.006614	lb/MMBtu	2	2.72E-02	5.80E-04	1.81E-02
EU-12 Standby Generator Aircraft Lighting Vault (600 kW)	Diesel	746.66	MMBtu	124.00	hr	CO ₂	163.0547	lb/MMBtu	1	9.82E+02	6.09E+01	1.69E+03
		746.66	MMBtu	124.00	hr	N ₂ O	0.0013	lb/MMBtu	2	7.97E-03	4.94E-04	1.37E-02
		746.66	MMBtu	124.00	hr	CH ₄	0.006614	lb/MMBtu	2	3.98E-02	2.47E-03	6.86E-02
EU-13 Standby Generator Hourly Parking Garage (600 kW)	Diesel	225.20	MMBtu	37.40	hr	CO ₂	163.0547	lb/MMBtu	1	9.82E+02	1.84E+01	5.74E+02
		225.20	MMBtu	37.40	hr	N ₂ O	0.0013	lb/MMBtu	2	7.97E-03	1.49E-04	4.65E-03
		225.20	MMBtu	37.40	hr	CH ₄	0.006614	lb/MMBtu	2	3.98E-02	7.45E-04	2.33E-02
EU-14 Standby Generator Pier A Triturator (500 kW)	Diesel	108.89	MMBtu	21.70	hr	CO ₂	163.0547	lb/MMBtu	1	8.18E+02	8.88E+00	2.77E+02
		108.89	MMBtu	21.70	hr	N ₂ O	0.0013	lb/MMBtu	2	6.64E-03	7.20E-05	2.25E-03
		108.89	MMBtu	21.70	hr	CH ₄	0.006614	lb/MMBtu	2	3.32E-02	3.60E-04	1.13E-02
EU-15 Standby Generator Intl. Terminal LL (900 kW)	Diesel	325.16	MMBtu	36.00	hr	CO ₂	163.0547	lb/MMBtu	1	1.47E+03	2.65E+01	8.28E+02
		325.16	MMBtu	36.00	hr	N ₂ O	0.0013	lb/MMBtu	2	1.19E-02	2.15E-04	6.72E-03
		325.16	MMBtu	36.00	hr	CH ₄	0.006614	lb/MMBtu	2	5.97E-02	1.08E-03	3.36E-02
EU-16 Standby Generator Gate C1 (2000 kW)	Diesel	939.14	MMBtu	46.79	hr	CO ₂	163.0547	lb/MMBtu	1	3.27E+03	7.66E+01	2.39E+03
		939.14	MMBtu	46.79	hr	N ₂ O	0.0013	lb/MMBtu	2	2.66E-02	6.21E-04	1.94E-02
		939.14	MMBtu	46.79	hr	CH ₄	0.006614	lb/MMBtu	2	1.33E-01	3.11E-03	9.71E-02
EU-17 Standby Generator Mobile CUP (2000 kW)	Diesel	120.43	MMBtu	6.00	hr	CO ₂	163.0547	lb/MMBtu	1	3.27E+03	9.82E+00	3.27E+03
		120.43	MMBtu	6.00	hr	N ₂ O	0.0013	lb/MMBtu	2	2.66E-02	7.97E-05	2.66E-02
		120.43	MMBtu	6.00	hr	CH ₄	0.006614	lb/MMBtu	2	1.33E-01	3.98E-04	1.33E-01
EU-18 Standby Generator Gate C2 (900 kW)	Diesel	338.80	MMBtu	37.51	hr	CO ₂	163.0547	lb/MMBtu	1	1.47E+03	2.76E+01	8.63E+02
		338.80	MMBtu	37.51	hr	N ₂ O	0.0013	lb/MMBtu	2	1.19E-02	2.24E-04	7.00E-03
		338.80	MMBtu	37.51	hr	CH ₄	0.006614	lb/MMBtu	2	5.97E-02	1.12E-03	3.50E-02
EU-8 Training Fires	Jet-A (JP-8)	28,837.50	gal			CO ₂	21,095	lb/1000 gal	3	-	3.04E+02	3.04E+05
		28,837.50	gal			N ₂ O	0.26	lb/1000 gal	2	-	3.75E-03	3.75E+00
		28,837.50	gal			CH ₄	0.216	lb/1000 gal	2	-	3.11E-03	3.11E+00
EU-28 LSC Boiler (1.969 MMBtu/hr)	Natural Gas	2.49	MMcf	1,290.91	hr	CO ₂	120,019	lb/MMcf	1	2.32E+02	1.50E+02	5.54E+03
		2.49	MMcf	1,290.91	hr	N ₂ O	0.226195	lb/MMcf	2	4.37E-04	2.82E-04	1.04E-02
		2.49	MMcf	1,290.91	hr	CH ₄	2.261955	lb/MMcf	2	4.37E-03	2.82E-03	1.04E-01
EU-29 Standby Generator OMU (750 kW)	Diesel	60.36	MMBtu	8.02	hr	CO ₂	163.0547	lb/MMBtu	1	1.23E+03	4.92E+00	1.64E+03
		60.36	MMBtu	8.02	hr	N ₂ O	0.0013	lb/MMBtu	2	9.96E-03	3.99E-05	1.33E-02
		60.36	MMBtu	8.02	hr	CH ₄	0.006614	lb/MMBtu	2	4.98E-02	2.00E-04	6.65E-02
EU-30 ARFF Building Heater (1.65 MMBtu/hr)	Natural Gas	1.82	MMcf	1,123.92	hr	CO ₂	120,019	lb/MMcf	1	1.94E+02	1.09E+02	4.64E+03
		1.82	MMcf	1,123.92	hr	N ₂ O	0.226195	lb/MMcf	2	3.66E-04	2.06E-04	8.75E-03
		1.82	MMcf	1,123.92	hr	CH ₄	2.261955	lb/MMcf	2	3.66E-03	2.06E-03	8.75E-02

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Source Description and Location	Source Process Material	Annual Process Throughput		Annual Process Duration		Criteria Pollutant	Emission Factors			Actual Emission Estimates		
		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day
EU-32 Temporary Generator (1000 kW)	Diesel	0.00	MMBtu	0.00	hr	CO ₂	163.0547	lb/MMBtu	1	-	-	-
		0.00	MMBtu	0.00	hr	N ₂ O	0.0013	lb/MMBtu	2	-	-	-
		0.00	MMBtu	0.00	hr	CH ₄	0.006614	lb/MMBtu	2	-	-	-
D-Pier Boiler 1 (3.00 MMBtu/hr)	Natural Gas	3.51	MMcf	1,193.46	hr	CO ₂	120,019	lb/MMcf	1	3.53E+02	2.11E+02	8.43E+03
		3.51	MMcf	1,193.46	hr	N ₂ O	0.226195	lb/MMcf	2	6.65E-04	3.97E-04	1.59E-02
		3.51	MMcf	1,193.46	hr	CH ₄	2.261955	lb/MMcf	2	6.65E-03	3.97E-03	1.59E-01
D-Pier Boiler 2 (3.00 MMBtu/hr)	Natural Gas	3.51	MMcf	1,193.46	hr	CO ₂	120,019	lb/MMcf	1	3.53E+02	2.11E+02	8.43E+03
		3.51	MMcf	1,193.46	hr	N ₂ O	0.226195	lb/MMcf	2	6.65E-04	3.97E-04	1.59E-02
		3.51	MMcf	1,193.46	hr	CH ₄	2.261955	lb/MMcf	2	6.65E-03	3.97E-03	1.59E-01
HVAC Chillers	HFC/PFC**	0.00	lbs		hr	HFC-134a		lb/MMBtu	-	-	0.00E+00	0.00E+00

Notes:

Emission Factor Sources

- 1 - Table C-1 to Subpart C of 40 CFR Part 98 (Greenhouse Gas Reporting)
- 2 - Table C-2 to Subpart C of 40 CFR Part 98 (Greenhouse Gas Reporting)
- 3 - U.S. EPA's eGRID Database (<http://www.epa.gov/cleanenergy/energy-resources/egrid/index.html>)
 IPCC Fourth Assessment Report (2007)

No new HFC/PFC was lost/consumed during this year

For boilers (EU1-EU3, EU9), emissions are based on reported fuel usage.

Fuel consumption of the boilers is based on natural gas higher heating value of 1,020 Btu/scf (AP-42 Table 1.4-1)

Generators energy throughput (MMBtu/hr) is based on diesel heating value of 140,000 Btu/gal (AP-42)

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 Toxic Air Pollutants

Source Description and Location	Source Process Material	Annual Process Throughput		Annual Process Duration		Billable TAP	Emission Factors			Actual Emission Estimates		
		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day
EU-1 CUP Boiler #1 (55 MMBtu/hr)	Natural Gas	45.94	MMcf	851.93	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		45.94	MMcf	851.93	hr	Carbonyl Sulfide		1	-	-	-	
		45.94	MMcf	851.93	hr	Chlorine		1	-	-	-	
		45.94	MMcf	851.93	hr	Cyanide Compounds		1	-	-	-	
		45.94	MMcf	851.93	hr	Hydrochloric Acid		1	-	-	-	
		45.94	MMcf	851.93	hr	Hydrogen Flouride		1	-	-	-	
		45.94	MMcf	851.93	hr	Methyl Chloroform		1	-	-	-	
		45.94	MMcf	851.93	hr	Methylene Chloride		1	-	-	-	
		45.94	MMcf	851.93	hr	Perchloroethylene		1	-	-	-	
		45.94	MMcf	851.93	hr	Phosphine		1	-	-	-	
	45.94	MMcf	851.93	hr	Titanium Tetrachloride	1		-	-	-		
	No. 2 Distillate	0.96	1000 gal	2.45	hr	Carbon Disulfide		1	-	-	-	
		0.96	1000 gal	2.45	hr	Carbonyl Sulfide		1	-	-	-	
		0.96	1000 gal	2.45	hr	Chlorine		1	-	-	-	
		0.96	1000 gal	2.45	hr	Cyanide Compounds		1	-	-	-	
		0.96	1000 gal	2.45	hr	Hydrochloric Acid		1	-	-	-	
		0.96	1000 gal	2.45	hr	Hydrogen Flouride		1	-	-	-	
		0.96	1000 gal	2.45	hr	Methyl Chloroform		1	-	-	-	
		0.96	1000 gal	2.45	hr	Methylene Chloride		1	-	-	-	
		0.96	1000 gal	2.45	hr	Perchloroethylene		1	-	-	-	
0.96		1000 gal	2.45	hr	Phosphine	1	-	-	-			
EU-2 CUP Boiler #2 (55 MMBtu/hr)	Natural Gas	45.94	MMcf	851.93	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		45.94	MMcf	851.93	hr	Carbonyl Sulfide		1	-	-	-	
		45.94	MMcf	851.93	hr	Chlorine		1	-	-	-	
		45.94	MMcf	851.93	hr	Cyanide Compounds		1	-	-	-	
		45.94	MMcf	851.93	hr	Hydrochloric Acid		1	-	-	-	
		45.94	MMcf	851.93	hr	Hydrogen Flouride		1	-	-	-	
		45.94	MMcf	851.93	hr	Methyl Chloroform		1	-	-	-	
		45.94	MMcf	851.93	hr	Methylene Chloride		1	-	-	-	
		45.94	MMcf	851.93	hr	Perchloroethylene		1	-	-	-	
		45.94	MMcf	851.93	hr	Phosphine		1	-	-	-	
	45.94	MMcf	851.93	hr	Titanium Tetrachloride	1		-	-	-		
	No. 2 Distillate	0.96	1000 gal	2.45	hr	Carbon Disulfide		1	-	-	-	
		0.96	1000 gal	2.45	hr	Carbonyl Sulfide		1	-	-	-	
		0.96	1000 gal	2.45	hr	Chlorine		1	-	-	-	
		0.96	1000 gal	2.45	hr	Cyanide Compounds		1	-	-	-	
		0.96	1000 gal	2.45	hr	Hydrochloric Acid		1	-	-	-	
		0.96	1000 gal	2.45	hr	Hydrogen Flouride		1	-	-	-	
		0.96	1000 gal	2.45	hr	Methyl Chloroform		1	-	-	-	
		0.96	1000 gal	2.45	hr	Methylene Chloride		1	-	-	-	
		0.96	1000 gal	2.45	hr	Perchloroethylene		1	-	-	-	
0.96		1000 gal	2.45	hr	Phosphine	1	-	-	-			
0.96	1000 gal	2.45	hr	Titanium Tetrachloride	1	-	-	-				

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Source Description and Location	Source Process Material	Annual Process Throughput		Annual Process Duration		Billable TAP	Emission Factors			Actual Emission Estimates		
		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day
EU-3 CUP Boiler #3 (25 MMBtu/hr)	Natural Gas	20.88	MMcf	851.93	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		20.88	MMcf	851.93	hr	Carbonyl Sulfide		1	-	-	-	
		20.88	MMcf	851.93	hr	Chlorine		1	-	-	-	
		20.88	MMcf	851.93	hr	Cyanide Compounds		1	-	-	-	
		20.88	MMcf	851.93	hr	Hydrochloric Acid		1	-	-	-	
		20.88	MMcf	851.93	hr	Hydrogen Flouride		1	-	-	-	
		20.88	MMcf	851.93	hr	Methyl Chloroform		1	-	-	-	
		20.88	MMcf	851.93	hr	Methylene Chloride		1	-	-	-	
		20.88	MMcf	851.93	hr	Perchloroethylene		1	-	-	-	
	20.88	MMcf	851.93	hr	Phosphine	1		-	-	-		
	20.88	MMcf	851.93	hr	Titanium Tetrachloride	1		-	-	-		
	No. 2 Distillate	0.44	1000 gal	2.45	hr	Carbon Disulfide		1	-	-	-	
		0.44	1000 gal	2.45	hr	Carbonyl Sulfide		1	-	-	-	
		0.44	1000 gal	2.45	hr	Chlorine		1	-	-	-	
		0.44	1000 gal	2.45	hr	Cyanide Compounds		1	-	-	-	
		0.44	1000 gal	2.45	hr	Hydrochloric Acid		1	-	-	-	
		0.44	1000 gal	2.45	hr	Hydrogen Flouride		1	-	-	-	
		0.44	1000 gal	2.45	hr	Methyl Chloroform		1	-	-	-	
0.44		1000 gal	2.45	hr	Methylene Chloride	1	-	-	-			
0.44		1000 gal	2.45	hr	Perchloroethylene	1	-	-	-			
0.44	1000 gal	2.45	hr	Phosphine	1	-	-	-				
0.44	1000 gal	2.45	hr	Titanium Tetrachloride	1	-	-	-				
EU-31 Building 123 Boiler (3.22 MMBtu/hr)	No. 2 Distillate	9.37	1000 gal	407.57	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		9.37	1000 gal	407.57	hr	Carbonyl Sulfide		1	-	-	-	
		9.37	1000 gal	407.57	hr	Chlorine		1	-	-	-	
		9.37	1000 gal	407.57	hr	Cyanide Compounds		1	-	-	-	
		9.37	1000 gal	407.57	hr	Hydrochloric Acid		1	-	-	-	
		9.37	1000 gal	407.57	hr	Hydrogen Flouride		1	-	-	-	
		9.37	1000 gal	407.57	hr	Methyl Chloroform		1	-	-	-	
		9.37	1000 gal	407.57	hr	Methylene Chloride		1	-	-	-	
		9.37	1000 gal	407.57	hr	Perchloroethylene		1	-	-	-	
		9.37	1000 gal	407.57	hr	Phosphine		1	-	-	-	
9.37	1000 gal	407.57	hr	Titanium Tetrachloride	1	-	-	-				
EU-19 Boiler #1 - Concourse E (1.99 MMBtu/hr)	Natural Gas	0.00	MMcf	0.40	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		0.00	MMcf	0.40	hr	Carbonyl Sulfide		1	-	-	-	
		0.00	MMcf	0.40	hr	Chlorine		1	-	-	-	
		0.00	MMcf	0.40	hr	Cyanide Compounds		1	-	-	-	
		0.00	MMcf	0.40	hr	Hydrochloric Acid		1	-	-	-	
		0.00	MMcf	0.40	hr	Hydrogen Flouride		1	-	-	-	
		0.00	MMcf	0.40	hr	Methyl Chloroform		1	-	-	-	
		0.00	MMcf	0.40	hr	Methylene Chloride		1	-	-	-	
		0.00	MMcf	0.40	hr	Perchloroethylene		1	-	-	-	
		0.00	MMcf	0.40	hr	Phosphine		1	-	-	-	
0.00	MMcf	0.40	hr	Titanium Tetrachloride	1	-	-	-				
EU-20 Boilers #2 - Concourse E (1.99 MMBtu/hr)	Natural Gas	0.00	MMcf	0.40	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		0.00	MMcf	0.40	hr	Carbonyl Sulfide		1	-	-	-	
		0.00	MMcf	0.40	hr	Chlorine		1	-	-	-	
		0.00	MMcf	0.40	hr	Cyanide Compounds		1	-	-	-	
		0.00	MMcf	0.40	hr	Hydrochloric Acid		1	-	-	-	
		0.00	MMcf	0.40	hr	Hydrogen Flouride		1	-	-	-	
		0.00	MMcf	0.40	hr	Methyl Chloroform		1	-	-	-	
		0.00	MMcf	0.40	hr	Methylene Chloride		1	-	-	-	
		0.00	MMcf	0.40	hr	Perchloroethylene		1	-	-	-	
		0.00	MMcf	0.40	hr	Phosphine		1	-	-	-	
0.00	MMcf	0.40	hr	Titanium Tetrachloride	1	-	-	-				

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		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day
EU-23 Boiler #1 - Concourse B (3.0 MMBtu/hr)	Natural Gas	6.59	MMcf	2,241.20	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		6.59	MMcf	2,241.20	hr	Carbonyl Sulfide		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Chlorine		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Cyanide Compounds		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Hydrochloric Acid		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Hydrogen Flouride		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Methyl Chloroform		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Methylene Chloride		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Perchloroethylene		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Phosphine		1	-	-	-	
EU-24 Boiler #2 - Concourse B (3.0 MMBtu/hr)	Natural Gas	6.59	MMcf	2,241.20	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		6.59	MMcf	2,241.20	hr	Carbonyl Sulfide		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Chlorine		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Cyanide Compounds		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Hydrochloric Acid		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Hydrogen Flouride		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Methyl Chloroform		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Methylene Chloride		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Perchloroethylene		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Phosphine		1	-	-	-	
EU-25 Boiler #3 - Concourse B (3.0 MMBtu/hr)	Natural Gas	6.59	MMcf	2,241.20	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		6.59	MMcf	2,241.20	hr	Carbonyl Sulfide		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Chlorine		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Cyanide Compounds		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Hydrochloric Acid		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Hydrogen Flouride		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Methyl Chloroform		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Methylene Chloride		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Perchloroethylene		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Phosphine		1	-	-	-	
6.59	MMcf	2,241.20	hr	Titanium Tetrachloride	1	-	-	-				

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Source Description and Location	Source Process Material	Annual Process Throughput		Annual Process Duration		Billable TAP	Emission Factors			Actual Emission Estimates		
		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day
EU-26 Boiler #4 - Concourse B (3.0 MMBtu/hr)	Natural Gas	6.59	MMcf	2,241.20	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		6.59	MMcf	2,241.20	hr	Carbonyl Sulfide		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Chlorine		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Cyanide Compounds		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Hydrochloric Acid		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Hydrogen Fluoride		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Methyl Chloroform		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Methylene Chloride		1	-	-	-	
		6.59	MMcf	2,241.20	hr	Perchloroethylene		1	-	-	-	
EU-27 ARFF Building (#105) Boiler (1.0 MMBtu/hr)	Natural Gas	1.10	MMcf	1,123.92	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		1.10	MMcf	1,123.92	hr	Carbonyl Sulfide		1	-	-	-	
		1.10	MMcf	1,123.92	hr	Chlorine		1	-	-	-	
		1.10	MMcf	1,123.92	hr	Cyanide Compounds		1	-	-	-	
		1.10	MMcf	1,123.92	hr	Hydrochloric Acid		1	-	-	-	
		1.10	MMcf	1,123.92	hr	Hydrogen Fluoride		1	-	-	-	
		1.10	MMcf	1,123.92	hr	Methyl Chloroform		1	-	-	-	
		1.10	MMcf	1,123.92	hr	Methylene Chloride		1	-	-	-	
		1.10	MMcf	1,123.92	hr	Perchloroethylene		1	-	-	-	
EU-4 Standby Generator Pier D Front of Terminal (505 kW)	Diesel	251.37	MMBtu	49.60	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		251.37	MMBtu	49.60	hr	Carbonyl Sulfide		1	-	-	-	
		251.37	MMBtu	49.60	hr	Chlorine		1	-	-	-	
		251.37	MMBtu	49.60	hr	Cyanide Compounds		1	-	-	-	
		251.37	MMBtu	49.60	hr	Hydrochloric Acid		1	-	-	-	
		251.37	MMBtu	49.60	hr	Hydrogen Fluoride		1	-	-	-	
		251.37	MMBtu	49.60	hr	Methyl Chloroform		1	-	-	-	
		251.37	MMBtu	49.60	hr	Methylene Chloride		1	-	-	-	
		251.37	MMBtu	49.60	hr	Perchloroethylene		1	-	-	-	
EU-5 Standby Generator Daily Parking Garage (750 kW)	Diesel	331.18	MMBtu	44.00	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		331.18	MMBtu	44.00	hr	Carbonyl Sulfide		1	-	-	-	
		331.18	MMBtu	44.00	hr	Chlorine		1	-	-	-	
		331.18	MMBtu	44.00	hr	Cyanide Compounds		1	-	-	-	
		331.18	MMBtu	44.00	hr	Hydrochloric Acid		1	-	-	-	
		331.18	MMBtu	44.00	hr	Hydrogen Fluoride		1	-	-	-	
		331.18	MMBtu	44.00	hr	Methyl Chloroform		1	-	-	-	
		331.18	MMBtu	44.00	hr	Methylene Chloride		1	-	-	-	
		331.18	MMBtu	44.00	hr	Perchloroethylene		1	-	-	-	
EU-6 Standby Generator Pier A (900 kW)	Diesel	379.35	MMBtu	42.00	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		379.35	MMBtu	42.00	hr	Carbonyl Sulfide		1	-	-	-	
		379.35	MMBtu	42.00	hr	Chlorine		1	-	-	-	
		379.35	MMBtu	42.00	hr	Cyanide Compounds		1	-	-	-	
		379.35	MMBtu	42.00	hr	Hydrochloric Acid		1	-	-	-	
		379.35	MMBtu	42.00	hr	Hydrogen Fluoride		1	-	-	-	
		379.35	MMBtu	42.00	hr	Methyl Chloroform		1	-	-	-	
		379.35	MMBtu	42.00	hr	Methylene Chloride		1	-	-	-	
		379.35	MMBtu	42.00	hr	Perchloroethylene		1	-	-	-	
		379.35	MMBtu	42.00	hr	Phosphine	1	-	-	-		
		379.35	MMBtu	42.00	hr	Titanium Tetrachloride	1	-	-	-		

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Source Description and Location	Source Process Material	Annual Process Throughput		Annual Process Duration		Billable TAP	Emission Factors			Actual Emission Estimates		
		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day
EU-10 Standby Generator International Terminal Roof (600 kW)	Diesel	349.24	MMBtu	58.00	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		349.24	MMBtu	58.00	hr	Carbonyl Sulfide		1	-	-	-	
		349.24	MMBtu	58.00	hr	Chlorine		1	-	-	-	
		349.24	MMBtu	58.00	hr	Cyanide Compounds		1	-	-	-	
		349.24	MMBtu	58.00	hr	Hydrochloric Acid		1	-	-	-	
		349.24	MMBtu	58.00	hr	Hydrogen Flouride		1	-	-	-	
		349.24	MMBtu	58.00	hr	Methyl Chloroform		1	-	-	-	
		349.24	MMBtu	58.00	hr	Methylene Chloride		1	-	-	-	
		349.24	MMBtu	58.00	hr	Perchloroethylene		1	-	-	-	
		349.24	MMBtu	58.00	hr	Phosphine		1	-	-	-	
349.24	MMBtu	58.00	hr	Titanium Tetrachloride	1	-	-	-				
EU-11 Standby Generator MAC Building (410 kW)	Diesel	175.28	MMBtu	42.60	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		175.28	MMBtu	42.60	hr	Carbonyl Sulfide		1	-	-	-	
		175.28	MMBtu	42.60	hr	Chlorine		1	-	-	-	
		175.28	MMBtu	42.60	hr	Cyanide Compounds		1	-	-	-	
		175.28	MMBtu	42.60	hr	Hydrochloric Acid		1	-	-	-	
		175.28	MMBtu	42.60	hr	Hydrogen Flouride		1	-	-	-	
		175.28	MMBtu	42.60	hr	Methyl Chloroform		1	-	-	-	
		175.28	MMBtu	42.60	hr	Methylene Chloride		1	-	-	-	
		175.28	MMBtu	42.60	hr	Perchloroethylene		1	-	-	-	
		175.28	MMBtu	42.60	hr	Phosphine		1	-	-	-	
175.28	MMBtu	42.60	hr	Titanium Tetrachloride	1	-	-	-				
EU-12 Standby Generator Aircraft Lighting Vault (600 kW)	Diesel	746.66	MMBtu	124.00	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		746.66	MMBtu	124.00	hr	Carbonyl Sulfide		1	-	-	-	
		746.66	MMBtu	124.00	hr	Chlorine		1	-	-	-	
		746.66	MMBtu	124.00	hr	Cyanide Compounds		1	-	-	-	
		746.66	MMBtu	124.00	hr	Hydrochloric Acid		1	-	-	-	
		746.66	MMBtu	124.00	hr	Hydrogen Flouride		1	-	-	-	
		746.66	MMBtu	124.00	hr	Methyl Chloroform		1	-	-	-	
		746.66	MMBtu	124.00	hr	Methylene Chloride		1	-	-	-	
		746.66	MMBtu	124.00	hr	Perchloroethylene		1	-	-	-	
		746.66	MMBtu	124.00	hr	Phosphine		1	-	-	-	
746.66	MMBtu	124.00	hr	Titanium Tetrachloride	1	-	-	-				
EU-13 Standby Generator Hourly Parking Garage (600 kW)	Diesel	225.20	MMBtu	37.40	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		225.20	MMBtu	37.40	hr	Carbonyl Sulfide		1	-	-	-	
		225.20	MMBtu	37.40	hr	Chlorine		1	-	-	-	
		225.20	MMBtu	37.40	hr	Cyanide Compounds		1	-	-	-	
		225.20	MMBtu	37.40	hr	Hydrochloric Acid		1	-	-	-	
		225.20	MMBtu	37.40	hr	Hydrogen Flouride		1	-	-	-	
		225.20	MMBtu	37.40	hr	Methyl Chloroform		1	-	-	-	
		225.20	MMBtu	37.40	hr	Methylene Chloride		1	-	-	-	
		225.20	MMBtu	37.40	hr	Perchloroethylene		1	-	-	-	
		225.20	MMBtu	37.40	hr	Phosphine		1	-	-	-	
225.20	MMBtu	37.40	hr	Titanium Tetrachloride	1	-	-	-				
EU-14 Standby Generator Pier A Triturator (500 kW)	Diesel	108.89	MMBtu	21.70	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		108.89	MMBtu	21.70	hr	Carbonyl Sulfide		1	-	-	-	
		108.89	MMBtu	21.70	hr	Chlorine		1	-	-	-	
		108.89	MMBtu	21.70	hr	Cyanide Compounds		1	-	-	-	
		108.89	MMBtu	21.70	hr	Hydrochloric Acid		1	-	-	-	
		108.89	MMBtu	21.70	hr	Hydrogen Flouride		1	-	-	-	
		108.89	MMBtu	21.70	hr	Methyl Chloroform		1	-	-	-	
		108.89	MMBtu	21.70	hr	Methylene Chloride		1	-	-	-	
		108.89	MMBtu	21.70	hr	Perchloroethylene		1	-	-	-	
		108.89	MMBtu	21.70	hr	Phosphine		1	-	-	-	
108.89	MMBtu	21.70	hr	Titanium Tetrachloride	1	-	-	-				

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Source Description and Location	Source Process Material	Annual Process Throughput		Annual Process Duration		Billable TAP	Emission Factors			Actual Emission Estimates		
		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day
EU-15 Standby Generator Intl. Terminal LL (900 kW)	Diesel	325.16	MMBtu	36.00	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		325.16	MMBtu	36.00	hr	Carbonyl Sulfide		1	-	-	-	
		325.16	MMBtu	36.00	hr	Chlorine		1	-	-	-	
		325.16	MMBtu	36.00	hr	Cyanide Compounds		1	-	-	-	
		325.16	MMBtu	36.00	hr	Hydrochloric Acid		1	-	-	-	
		325.16	MMBtu	36.00	hr	Hydrogen Flouride		1	-	-	-	
		325.16	MMBtu	36.00	hr	Methyl Chloroform		1	-	-	-	
		325.16	MMBtu	36.00	hr	Methylene Chloride		1	-	-	-	
		325.16	MMBtu	36.00	hr	Perchloroethylene		1	-	-	-	
EU-16 Standby Generator Gate C1 (2000 kW)	Diesel	939.14	MMBtu	46.79	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		939.14	MMBtu	46.79	hr	Carbonyl Sulfide		1	-	-	-	
		939.14	MMBtu	46.79	hr	Chlorine		1	-	-	-	
		939.14	MMBtu	46.79	hr	Cyanide Compounds		1	-	-	-	
		939.14	MMBtu	46.79	hr	Hydrochloric Acid		1	-	-	-	
		939.14	MMBtu	46.79	hr	Hydrogen Flouride		1	-	-	-	
		939.14	MMBtu	46.79	hr	Methyl Chloroform		1	-	-	-	
		939.14	MMBtu	46.79	hr	Methylene Chloride		1	-	-	-	
		939.14	MMBtu	46.79	hr	Perchloroethylene		1	-	-	-	
EU-17 Standby Generator Mobile CUP (2000 kW)	Diesel	120.43	MMBtu	6.00	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		120.43	MMBtu	6.00	hr	Carbonyl Sulfide		1	-	-	-	
		120.43	MMBtu	6.00	hr	Chlorine		1	-	-	-	
		120.43	MMBtu	6.00	hr	Cyanide Compounds		1	-	-	-	
		120.43	MMBtu	6.00	hr	Hydrochloric Acid		1	-	-	-	
		120.43	MMBtu	6.00	hr	Hydrogen Flouride		1	-	-	-	
		120.43	MMBtu	6.00	hr	Methyl Chloroform		1	-	-	-	
		120.43	MMBtu	6.00	hr	Methylene Chloride		1	-	-	-	
		120.43	MMBtu	6.00	hr	Perchloroethylene		1	-	-	-	
EU-18 Standby Generator Gate C2 (900 kW)	Diesel	338.80	MMBtu	37.51	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		338.80	MMBtu	37.51	hr	Carbonyl Sulfide		1	-	-	-	
		338.80	MMBtu	37.51	hr	Chlorine		1	-	-	-	
		338.80	MMBtu	37.51	hr	Cyanide Compounds		1	-	-	-	
		338.80	MMBtu	37.51	hr	Hydrochloric Acid		1	-	-	-	
		338.80	MMBtu	37.51	hr	Hydrogen Flouride		1	-	-	-	
		338.80	MMBtu	37.51	hr	Methyl Chloroform		1	-	-	-	
		338.80	MMBtu	37.51	hr	Methylene Chloride		1	-	-	-	
		338.80	MMBtu	37.51	hr	Perchloroethylene		1	-	-	-	
EU-7 Gasoline Storage Tank Field Maintenance Building 116 (8000 gal)	Gasoline	142,366.34	gal	-	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		142,366.34	gal	-	hr	Carbonyl Sulfide		1	-	-	-	
		142,366.34	gal	-	hr	Chlorine		1	-	-	-	
		142,366.34	gal	-	hr	Cyanide Compounds		1	-	-	-	
		142,366.34	gal	-	hr	Hydrochloric Acid		1	-	-	-	
		142,366.34	gal	-	hr	Hydrogen Flouride		1	-	-	-	
		142,366.34	gal	-	hr	Methyl Chloroform		1	-	-	-	
		142,366.34	gal	-	hr	Methylene Chloride		1	-	-	-	
		142,366.34	gal	-	hr	Perchloroethylene		1	-	-	-	
142,366.34	gal	-	hr	Phosphine	1	-	-	-				
142,366.34	gal	-	hr	Titanium Tetrachloride	1	-	-	-				

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Source Description and Location	Source Process Material	Annual Process Throughput		Annual Process Duration		Billable TAP	Emission Factors			Actual Emission Estimates		
		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day
EU-8 Training Fires	Jet-A	28,837.50	gal	-	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		28,837.50	gal	-	hr	Carbonyl Sulfide		1	-	-	-	
		28,837.50	gal	-	hr	Chlorine		1	-	-	-	
		28,837.50	gal	-	hr	Cyanide Compounds		1	-	-	-	
		28,837.50	gal	-	hr	Hydrochloric Acid		1	-	-	-	
		28,837.50	gal	-	hr	Hydrogen Flouride		1	-	-	-	
		28,837.50	gal	-	hr	Methyl Chloroform		1	-	-	-	
		28,837.50	gal	-	hr	Methylene Chloride		1	-	-	-	
		28,837.50	gal	-	hr	Perchloroethylene		1	-	-	-	
EU-28 LSC Boiler (1.969 MMBtu/hr)	Natural Gas	2.49	MMcf	1,290.91	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		2.49	MMcf	1,290.91	hr	Carbonyl Sulfide		1	-	-	-	
		2.49	MMcf	1,290.91	hr	Chlorine		1	-	-	-	
		2.49	MMcf	1,290.91	hr	Cyanide Compounds		1	-	-	-	
		2.49	MMcf	1,290.91	hr	Hydrochloric Acid		1	-	-	-	
		2.49	MMcf	1,290.91	hr	Hydrogen Flouride		1	-	-	-	
		2.49	MMcf	1,290.91	hr	Methyl Chloroform		1	-	-	-	
		2.49	MMcf	1,290.91	hr	Methylene Chloride		1	-	-	-	
		2.49	MMcf	1,290.91	hr	Perchloroethylene		1	-	-	-	
EU-29 Standby Generator OMU (750 kW)	Diesel	60.36	MMBtu	8.02	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		60.36	MMBtu	8.02	hr	Carbonyl Sulfide		1	-	-	-	
		60.36	MMBtu	8.02	hr	Chlorine		1	-	-	-	
		60.36	MMBtu	8.02	hr	Cyanide Compounds		1	-	-	-	
		60.36	MMBtu	8.02	hr	Hydrochloric Acid		1	-	-	-	
		60.36	MMBtu	8.02	hr	Hydrogen Flouride		1	-	-	-	
		60.36	MMBtu	8.02	hr	Methyl Chloroform		1	-	-	-	
		60.36	MMBtu	8.02	hr	Methylene Chloride		1	-	-	-	
		60.36	MMBtu	8.02	hr	Perchloroethylene		1	-	-	-	
EU-30 ARFF Building Heater (1.65 MMBtu/hr)	Natural Gas	1.82	MMcf	1,123.92	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		1.82	MMcf	1,123.92	hr	Carbonyl Sulfide		1	-	-	-	
		1.82	MMcf	1,123.92	hr	Chlorine		1	-	-	-	
		1.82	MMcf	1,123.92	hr	Cyanide Compounds		1	-	-	-	
		1.82	MMcf	1,123.92	hr	Hydrochloric Acid		1	-	-	-	
		1.82	MMcf	1,123.92	hr	Hydrogen Flouride		1	-	-	-	
		1.82	MMcf	1,123.92	hr	Methyl Chloroform		1	-	-	-	
		1.82	MMcf	1,123.92	hr	Methylene Chloride		1	-	-	-	
		1.82	MMcf	1,123.92	hr	Perchloroethylene		1	-	-	-	
EU-32 Temporary Generator (1000 kW)	Diesel	0.00	MMBtu	0.00	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		0.00	MMBtu	0.00	hr	Carbonyl Sulfide		1	-	-	-	
		0.00	MMBtu	0.00	hr	Chlorine		1	-	-	-	
		0.00	MMBtu	0.00	hr	Cyanide Compounds		1	-	-	-	
		0.00	MMBtu	0.00	hr	Hydrochloric Acid		1	-	-	-	
		0.00	MMBtu	0.00	hr	Hydrogen Flouride		1	-	-	-	
		0.00	MMBtu	0.00	hr	Methyl Chloroform		1	-	-	-	
		0.00	MMBtu	0.00	hr	Methylene Chloride		1	-	-	-	
		0.00	MMBtu	0.00	hr	Perchloroethylene		1	-	-	-	
		0.00	MMBtu	0.00	hr	Phosphine	1	-	-	-		
		0.00	MMBtu	0.00	hr	Titanium Tetrachloride	1	-	-	-		

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Source Description and Location	Source Process Material	Annual Process Throughput		Annual Process Duration		Billable TAP	Emission Factors			Actual Emission Estimates		
		Rate	Unit	Rate	Unit		Rate	Unit	Source	lb/hr	tons/yr	lb/day
D-Pier Boiler 1 (3.00 MMBtu/hr)	Natural Gas	3.51	MMcf	1,193.46	hr	Carbon Disulfide	There are no published TAP emission factors.	1	-	-	-	
		3.51	MMcf	1,193.46	hr	Carbonyl Sulfide		1	-	-	-	
		3.51	MMcf	1,193.46	hr	Chlorine		1	-	-	-	
		3.51	MMcf	1,193.46	hr	Cyanide Compounds		1	-	-	-	
		3.51	MMcf	1,193.46	hr	Hydrochloric Acid		1	-	-	-	
		3.51	MMcf	1,193.46	hr	Hydrogen Flouride		1	-	-	-	
		3.51	MMcf	1,193.46	hr	Methyl Chloroform		1	-	-	-	
		3.51	MMcf	1,193.46	hr	Methylene Chloride		1	-	-	-	
		3.51	MMcf	1,193.46	hr	Perchloroethylene		1	-	-	-	
D-Pier Boiler 2 (3.00 MMBtu/hr)	Natural Gas	3.51	MMcf	1,193.46	hr	Phosphine	There are no published TAP emission factors.	1	-	-	-	
		3.51	MMcf	1,193.46	hr	Titanium Tetrachloride		1	-	-	-	
		3.51	MMcf	1,193.46	hr	Carbon Disulfide		1	-	-	-	
		3.51	MMcf	1,193.46	hr	Carbonyl Sulfide		1	-	-	-	
		3.51	MMcf	1,193.46	hr	Chlorine		1	-	-	-	
		3.51	MMcf	1,193.46	hr	Cyanide Compounds		1	-	-	-	
		3.51	MMcf	1,193.46	hr	Hydrochloric Acid		1	-	-	-	
		3.51	MMcf	1,193.46	hr	Hydrogen Flouride		1	-	-	-	
		3.51	MMcf	1,193.46	hr	Methyl Chloroform		1	-	-	-	
D-Pier Boiler 2 (3.00 MMBtu/hr)	Natural Gas	3.51	MMcf	1,193.46	hr	Methylene Chloride	There are no published TAP emission factors.	1	-	-	-	
		3.51	MMcf	1,193.46	hr	Perchloroethylene		1	-	-	-	
		3.51	MMcf	1,193.46	hr	Phosphine		1	-	-	-	
		3.51	MMcf	1,193.46	hr	Titanium Tetrachloride		1	-	-	-	

Notes:
 1 - No emission factors provided in AP-42. There are no operations which utilize or produce these materials.

**Baltimore Washington International (BWI) Thurgood Marshall Airport
2021 Annual Emission Certification Report
Reportable HAPs**

Pollutant	Emissions			Threshold		Reportable?
	lb/hr	tons/yr	lb/day	lb/hr	tons/yr	
Acetaldehyde	5.94E-03	1.20E-04	4.40E-03	0.1	0.1	NO
Acrolein	1.25E-03	2.46E-05	9.72E-04	0.001	0.01	YES
Arsenic	5.85E-04	1.84E-05	2.36E-03	0.0001	0.0001	YES
Barium	6.97E-04	3.33E-04	1.61E-02	no threshold		NO
Benzene	9.01E-02	1.86E-03	8.17E-02	0.01	0.1	YES
Beryllium	4.17E-04	3.37E-06	1.27E-03	0.00001	0.0001	YES
Cadmium	5.89E-04	8.58E-05	5.25E-03	0.0001	0.0001	YES
Chromium	6.36E-04	1.09E-04	6.35E-03	0.001	0.01	NO
Cobalt	1.33E-05	6.37E-06	3.08E-04	0.0001	0.001	NO
Dichlorobenzene	1.90E-04	9.09E-05	4.40E-03	1	0.1	NO
Formaldehyde	5.80E-02	6.15E-03	3.81E-01	0.001	0.01	YES
Hexane	2.85E-01	1.36E-01	6.59E+00	1	10	NO
Manganese	8.90E-04	3.37E-05	3.84E-03	0.001	0.01	NO
Mercury	4.56E-04	2.22E-05	2.18E-03	0.0001	0.001	YES
Naphthalene	1.59E-02	3.32E-04	1.76E-02	0.1	1	NO
Nickel	7.47E-04	1.62E-04	8.92E-03	0.001	0.001	NO
Selenium	2.08E-03	1.41E-05	6.20E-03	0.001	0.01	YES
Toluene	3.94E-02	9.17E-04	5.73E-02	1	10	NO
Xylene	2.26E-02	4.29E-04	1.87E-02	1	10	NO
POM	2.74E-02	4.83E-04	2.97E-02	include		YES

Baltimore Washington International (BWI) Thurgood Marshall Airport
Emission Calculations

8,000 gal Horizontal Underground Fixed Roof Tank - Gasoline Storage

Source ID: EU-7

Month	Pollutant	Emissions	
		lb/yr	tons
January	VOC	87.11	0.04
February	VOC	90.14	0.05
March	VOC	101.63	0.05
April	VOC	103.71	0.05
May	VOC	120.10	0.06
June	VOC	149.53	0.07
July	VOC	158.76	0.08
August	VOC	155.13	0.08
September	VOC	125.20	0.06
October	VOC	109.76	0.05
November	VOC	84.71	0.04
December	VOC	71.71	0.04
Total	VOC	1,357.5	0.68

Material Information (Per Tank):		
Material		Gasoline
Throughput	Number of Turnovers:	15
	Annual Throughput (gal/yr):	142,366
	January Throughput (gal/month):	13,249
	February Throughput (gal/month):	13,154
	March Throughput (gal/month):	12,663
	April Throughput (gal/month):	10,933
	May Throughput (gal/month):	11,271
	June Throughput (gal/month):	12,626
	July Throughput (gal/month):	12,824
	August Throughput (gal/month):	12,740
	September Throughput (gal/month):	11,153
	October Throughput (gal/month):	11,354
	November Throughput (gal/month):	10,169
December Throughput (gal/month):	10,230	

Tank Information:		
Tank Length (feet)		16.0
Tank Diameter (feet)		10.0
Number of Turnovers per year		15
Type of Tank:		Horizontal Fixed Roof
Deck Characteristics	Tank Construction:	Welded
Location	Nearest City:	Baltimore, MD
Tank Solar absorptance (α):	Table 7.1-6	0.17

Other Information:		
Constants	F to °R conversion:	459.67
mmHg to psia conversion (psia/mmHg):		0.019337
	AP-42 Defined Material (from Table 7.1-3, 7.1-5):	
VP Calculation Method:		Linear Interpolation
Vapor Molecular Weight (lb/lb-mole)		62.00
Ideal Gas Constant (psia ft ³ /lb-mole °R):		10.73

Baltimore Washington International (BWI) Thurgood Marshall Airport
Emission Calculations

8,000 gal Horizontal Underground Fixed Roof Tank - Gasoline Storage

Source ID: EU-7

Meteorological Data

The daily maximum ambient temperature (TAX), daily minimum ambient temperature (TAN), and daily total solar insolation factor (I) for each month for Baltimore, MD were taken from Table 7.1-7 of AP-42 Chapter 7, dated 06/20.

City:		Baltimore, MD	
Annual Average Atmospheric Pressure (psia):		14.62	
Annual Average Wind Speed (mph):		7.2	
Month	Daily Maximum Ambient Temperature T _{AX} (°F)	Daily Minimum Ambient Temperature T _{AN} (°F)	Daily Total Solar Insolation Factor I (Btu/ft ² /d)
Jan.	42.2	26.6	653
Feb.	44.7	27.4	929
Mar.	53.5	34.8	1231
Apr.	65.1	44.3	1555
May	73.9	53.2	1774
June	82.8	63.1	1918
July	86.9	68.0	1866
Aug.	85.3	66.6	1661
Sept.	78.0	59.1	1350
Oct.	66.7	46.6	1036
Nov.	56.2	37.7	709
Dec.	45.5	29.6	580

Calculated Tank Temperature Data

The daily average ambient temperature (TAA) and bulk liquid temperature (TB) were calculated for each month using equations from AP-42, Chapter 7, dated 06/20. If product is not at ambient temperature, then the bulk temperature is set equal to the user entered temperature information above.

$$T_{AA} = \frac{T_{AX} + T_{AN}}{2}$$

Equation 1-30

$$T_B = T_{AA} + .003\alpha I$$

Equation 1-31

where:
T _{AA} = daily average ambient temperature, °R
T _B = liquid bulk temperature, °R
T _{AX} = daily maximum ambient temperature, °R
T _{AN} = daily minimum ambient temperature, °R
α = tank paint solar absorptance, dimensionless
I = average daily total insolation factor, Btu/(ft ² day)

Month	Days	Daily Maximum Ambient Temperature	Daily Minimum Ambient Temperature	Daily Average Ambient Temperature		Liquid Bulk Temperature	
		T _{AX} °R	T _{AN} °R	T _{AA} °R	T _{AA} °F	T _B °R	T _B °F
Jan.	31	501.87	486.27	494.07	34.40	494.40	34.73
Feb.	29	504.37	487.07	495.72	36.05	496.19	36.52
Mar.	31	513.17	494.47	503.82	44.15	504.45	44.78
Apr.	30	524.77	503.97	514.37	54.70	515.16	55.49
May	31	533.57	512.87	523.22	63.55	524.12	64.45
June	30	542.47	522.77	532.62	72.95	533.60	73.93
July	31	546.57	527.67	537.12	77.45	538.07	78.40
Aug.	31	544.97	526.27	535.62	75.95	536.48	76.81
Sept.	30	537.67	518.77	528.22	68.55	528.91	69.24
Oct.	31	526.37	506.27	516.32	56.65	516.85	57.18
Nov.	30	515.87	497.37	506.62	46.95	506.98	47.31
Dec.	31	505.17	489.27	497.22	37.55	497.52	37.85

Baltimore Washington International (BWI) Thurgood Marshall Airport
Emission Calculations

8,000 gal Horizontal Underground Fixed Roof Tank - Gasoline Storage

Source ID: EU-7

True Vapor Pressure

Based on linear interpolation and data in Table 7.1-2 for RVP13

	P _{VA} (psia)
January	4.22
February	4.41
March	5.26
April	6.35
May	7.26
June	8.22
July	8.65
August	8.49
September	7.74
October	6.48
November	5.48
December	4.52

Stock Vapor Density

$W_v = \frac{M_v P_{VA}}{RT_v}$ **Equation 1-22**

where:

W_v = vapor density, lb/ft³
M_v = vapor molecular weight, lb/lb-mole
R = the ideal gas constant, 10.731 psia ft³/lb-mole °R
P_{VA} = vapor pressure at daily average liquid surface temperature, psia
T_v = average vapor temperature, °R

$T_v = 0.7T_{AA} + 0.3T_B + 0.009 \alpha I$ **Equation 1-33**

where:

T_{AA} = daily average ambient temperature, °R
T_B = liquid bulk temperature, °R
α = tank paint solar absorptance, dimensionless
I = daily total solar insolation factor, Btu/ft² d

Stock Vapor Density, W _v (lb/ft ³)	
January	0.05
February	0.05
March	0.06
April	0.07
May	0.08
June	0.09
July	0.09
August	0.09
September	0.08
October	0.07
November	0.06
December	0.05

Daily Average Liquid Surface Temperature

$T_{LA} = 0.4T_{AA} + 0.6T_B + 0.005 \alpha I$ **Equation 1-28**

where:

T_{LA} = daily average liquid surface temperature, °R
T_{AA} = daily average ambient temperature, °R
T_B = liquid bulk temperature, °R
α = tank paint solar absorptance, dimensionless
I = daily total solar insolation factor, Btu/ft² d

Daily Average Liquid Surface Temperature, T _{LA} (°R)	
January	494.82
February	496.79
March	505.24
April	518.17
May	525.27
June	534.84
July	539.28
August	537.56
September	529.78
October	517.52
November	507.44
December	497.89

Baltimore Washington International (BWI) Thurgood Marshall Airport
Emission Calculations

8,000 gal Horizontal Underground Fixed Roof Tank - Gasoline Storage

Source ID: EU-7

Daily Average Ambient Temperature

$$T_{AA} = \frac{(T_{AM} + T_{AN})}{2}$$

Equation 1-30

where:

T_{AA} = daily average ambient temperature, °R
 T_{AM} = daily maximum ambient temperature, °R
 T_{AN} = daily minimum ambient temperature, °R

Daily Average Ambient Temperature, T_{AA} (°R)	
January	494.07
February	495.72
March	503.82
April	514.37
May	523.22
June	532.62
July	537.12
August	535.62
September	528.22
October	516.32
November	506.62
December	497.22

Liquid Bulk Temperature

$$T_B = T_{AA} + .003aI$$

Equation 1-31

where:

T_B = liquid bulk temperature, °R
 T_{AA} = daily average ambient temperature, °R
 a = tank paint solar absorptance, dimensionless
 I = average daily total insolation factor, Btu/(ft² day)

Liquid Bulk Temperature, T_B (°R)	
January	494.40
February	496.19
March	504.45
April	515.16
May	524.12
June	533.60
July	538.07
August	536.48
September	528.91
October	516.85
November	506.98
December	497.52

Working Loss

$$L_W = V_0 K_1 K_2 W_V K_3$$

Equation 1-35

where:

L_W = working loss, lb
 V_0 = net working loss throughput, ft³/yr
 K_1 = working loss turnover (saturation) factor, dimensionless
 *turnovers >36 = (180 + N)/6N where N = # of turnovers/yr, dimensionless
 *turnovers <36 = 1
 K_2 = working loss product factor for fixed roof tanks, dimensionless**
 **1 for volatile organic liquids, 0.75 for crude oils (7.1-19)
 W_V = vapor density, lb/ft³
 K_3 = vent setting correction factor, dimensionless**
 **1 for vent setting range up to +/- 0.03 psig

Working Loss, L_W (lb)	
January	87.11
February	90.14
March	101.63
April	103.71
May	120.10
June	149.53
July	158.76
August	155.13
September	125.20
October	109.76
November	84.71
December	71.71

$$V_0 = 5.614Q$$

Equation 1-39

where:

Q = annual net throughput, bbl/yr
 5.614 = constant, conversion of barrels to cubic ft, ft³/bbl

$$N = \sum H_{LX} / (H_{LX} - H_{LN})$$

Equation 1-36

$$\sum H_{LX} = (5.614 Q) / (\sum D_e^2)$$

Equation 1-37

where:

H_{LN} = minimum liquid height, ft*
 *if unknown, use 0 for horizontal tanks
 D_e = effective diameter, ft
 H_{LX} = maximum liquid height, ft*
 *if unknown, use: $(\pi/4) D$ where D is the diameter of a vertical cross-section of the horizontal tank

Q =	3389.74	bbl/yr
N =	15	
V_0 =	19,030	ft ³
D_e =	14.3	ft
H_{LX} =	9	ft
H_{LN} =	0	ft

Emergency Generator Annual Capacity Factors

**Baltimore Washington International (BWI) Thurgood Marshall Airport
2021 Annual Emission Certification Report
Annual Capacity Factors**

Generator Location	Permits	Capacity Factor
Pier D	EU-4	0.57%
Daily Parking Garage	EU-5	0.50%
Pier A	EU-6	0.48%
International Terminal	EU-10	0.66%
MAC Building	EU-11	0.49%
Aircraft Lighting Vault	EU-12	1.42%
Hourly Parking Garage	EU-13	0.43%
Pier A Triturator	EU-14	0.25%
Term E LL (Ticket Lobby)	EU-15	0.41%
Pier C-3	EU-16	0.53%
Mobile CUP	EU-17	0.07%
B-C Connector (C-2)	EU-18	0.43%
OMU	EU-29	0.09%
Temporary Generator	EU-32	0.00%

NSPS 40 CFR 60 Subpart IIII Reporting

**Baltimore Washington International (BWI) Thurgood Marshall Airport
2021 Annual Emission Certification Report
NSPS - 40 CFR 60 Subpart IIII Reporting**

Emergency Generators - Monthly Run Times (CY2021)

Generator Location	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Total Hours	Permits
Term E LL (Ticket Lobby)	2.0	3.0	5.0	4.0	4.0	1.0	4.0	3.0	1.0	4.0	2.0	3.0	36.00	EU-15
Pier C-3	7.0	2.0	5.9	3.0	2.9	0.9	8.5	3.5	1.6	6.9	2.5	2.1	46.79	EU-16
Mobile CUP	0.0	0.0	0.0	0.0	0.0	0.0	4.0	1.0	0.0	0.0	1.0	0.0	6.00	EU-17
B-C Connector (C-2)	2.4	2.0	2.7	7.4	2.1	0.9	5.5	3.4	1.7	4.8	1.7	3.0	37.51	EU-18
OMU Generator	0.1	0.2	0.2	0.6	0.2	4.6	0.2	0.3	0.5	0.2	0.1	0.7	8.02	EU-29
Temporary Generator	-	-	-	-	-	-	-	-	-	-	-	-	0.00	EU-32

Note(s):

- All generator operation was for preventative maintenance and weekly readiness testing.

Appendix D
Compliance Certification Report

March 23, 2022

Associate Director
Office of Enforcement and Permit Review (3AP10)
U.S. EPA Region III
1650 Arch Street
Philadelphia, PA 19103-2029

**Subject: Title V Permit Number 24-003-0208
Annual Compliance Certification Report
Reporting Period 1/1/2021 through 12/31/2021**

Dear Associate Director,

The Maryland Department of Transportation Maryland Aviation Administration (MDOT MAA) hereby submits the Annual Compliance Certification Report for the Baltimore Washington International Thurgood Marshall (BWI-Marshall) Airport as required by the facility's Title V permit. BWI-Marshall operated under Title V (Part 70) Permit 24-003-0208 issued on February 1, 2019. Compliance was determined for all units which operated at BWI-Marshall during calendar year 2021.

If you have any questions or comments regarding this report, please contact me at 410-859-7448 or via email at mwilliams1@bwiairport.com. Alternatively, Jennifer Ehrhardt, Project Manager, AECOM may be contacted at 609-720-2094 or via email at jennifer.ehrhardt@aecom.com.

Sincerely,



Mark Williams, Manager
Environmental Compliance Section
Office of Environmental Compliance and Sustainability

Enclosures

Federal Operating Permit Program (40 CFR Part 71)

ANNUAL COMPLIANCE CERTIFICATION (A-COMP)

A. GENERAL INFORMATION

Permit No. 24-003-0208

Reporting Period: Beg. 01 / 01 / 2021 End. 12 / 31 / 2021

Source / Company Name Maryland Department of Transportation Maryland Aviation Administration -
Baltimore Washington International (BWI-Marshall) Thurgood Marshall
Airport

Mailing Address: Street or P.O. Box P.O. Box 8766

City Baltimore State MD ZIP 21240 - 0766

Contact person Mark Williams Title Manager, Environmental
Compliance Section

Telephone (410) 859 - 7448 Ext. _____

Continued on next page

A-COMP

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): Plant Wide

Permit Term (Describe requirements and cross-reference)

Section III.1 - Particulate Matter from Construction and Demolition [COMAR 26.11.06.03D]

The Permittee shall not cause or permit any building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne.

Compliance Methods for the Above (Description and Citation):

BWI-Marshall incorporates into all appropriate construction contracts a provision for the control of fugitive emissions from construction activities. BWI-Marshall utilizes a construction oversight contractor to monitor construction activities and is present onsite throughout construction period to enforce contract provisions. No instances of violations were reported during the reporting period.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): Plant Wide

Permit Term (Describe requirements and cross-reference)

Section III.2 - Open Burning [COMAR 26.11.07]

Except as provided in COMAR 26.11.07.04, the Permittee shall not cause or permit an open fire from June 1 through August 31 of any calendar year. Prior to any open burning, the Permittee shall request and receive approval from the Department.

Compliance Methods for the Above (Description and Citation):

The only open burning conducted at BWI-Marshall is associated with fire training activities, and these activities are exempted from this requirement.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): Plant Wide

Permit Term (Describe requirements and cross-reference)

Section III.3 - Air Pollution Episode [COMAR 26.11.05.04]

When requested by the Department, the Permittee shall prepare in writing standby emissions reduction plans, consistent with good industrial practice and safe operating procedures, for reducing emissions creating pollution during periods of Alert, Warning, and Emergency of an air pollution episode.

Compliance Methods for the Above (Description and Citation):

BWI-Marshall follows the formal MDOT MAA directive for Ozone Alert Response.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): Plant Wide

Permit Term (Describe requirements and cross-reference)

Section III.4 - Report of Excess Emissions and Deviations [COMAR 26.11.01.07] and [COMAR 26.11.03.06C(7)]

- a. Report any deviation from permit requirement that could endanger human health or the environment, by orally notifying the Department immediately upon discovery of the deviation;
- b. Promptly report all occurrences of excess emissions that are expected to last one hour or longer by orally notifying the Department of the onset and termination of the occurrence;
- c. When requested by the Department the Permittee shall report all deviations from the permit conditions, including those attributed to malfunctions as defined in COMAR 26.11.01.07A, within 5 days of the request by submitting a written description of the deviation to the Department. The written report shall include the cause, dates and times of the onset and termination of the deviation, and an account of all actions planned or taken to reduce, eliminate, and prevent reoccurrence of the deviation;
- d. The Permittee shall submit to the Department semi-annual monitoring reports that confirm that all required monitoring was performed, and that provide accounts of all deviations from permit requirements that occurred during the reporting periods. Reporting periods shall be January 1 through June 30 and July 1 through December 31, and reports shall be submitted within 30 days of the end of the reporting period. Each account of deviation shall include a description of the deviation, the dates and times of onset and termination, identification of the person who observed or discovered the deviation, causes and corrective actions taken, and actions taken to prevent recurrence. If no deviations from the permit conditions occurred during a reporting period, the Permittee shall submit a written report that so states.
- e. When requested by the Department, the Permittee shall submit a written report to the Department within 10 days of receiving the request concerning an occurrence of excess emissions. The report shall contain information required in COMAR 26.11.01.07D(2).

Compliance Methods for the Above (Description and Citation):

All reports have been filed in a timely manner.

Status (Check one): Intermittent Compliance Continuous Compliance

A-COMP

Emission Unit ID(s): Plant Wide

Permit Term (Describe requirements and cross-reference)

Section III.5 - Accidental Release Provisions [COMAR 26.11.03.03B(23)] and [40 CFR 68]

Should the Permittee become subject to 40 CFR 68 during the term of this permit, the Permittee shall submit risk management plans by the date specified in 40 CFR 68.150 and shall certify compliance with the requirements of 40 CFR 68 as part of the annual compliance certification as required by 40 CFR 70.

The Permittee shall initiate a permit revision or reopening according to the procedures of 40 CFR 70.7 to incorporate appropriate permit conditions into the Permittee's Part 70 permit.

Compliance Methods for the Above (Description and Citation):

BWI-Marshall is currently not subject to this requirement.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): Plant Wide

Permit Term (Describe requirements and cross-reference)

Section III.6 - General Testing Requirements [COMAR 26.11.01.04]

The Department may require the Permittee to conduct, or have conducted, testing to determine compliance with the Part 70 permit. The Department, at its option, may witness or conduct these tests. The testing shall be done at a reasonable time, and all information gathered during a testing operation shall be provided to the Department.

Compliance Methods for the Above (Description and Citation):

As applicable, all required testing was conducted during the reporting period with results reported to the Department.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): Plant Wide

Permit Term (Describe requirements and cross-reference)

Section III.7 - Emissions Test Methods [COMAR 26.11.01.04]

Compliance with the emissions standards and limitation in this Part 70 permit shall be determined by the test methods designated and described below or other test methods submitted to and approved by the Department.

Reference documents of the test methods approved by the Department include the following:

- a. 40 CFR, appendix A
- b. 40 CFR 51, appendix M
- c. The Department's Technical Memorandum 91-01 "Test Methods and Equipment Specifications for Stationary Sources", (January 1991), as amended through Supplement 3, (October 1, 1997)

Compliance Methods for the Above (Description and Citation):

As applicable, all testing was done in accordance with approved test methods, including prior approval of test protocols by the Department. Mandatory initial testing following installation was completed; subsequent periodic testing is required at a later date.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): Plant Wide

Permit Term (Describe requirements and cross-reference)

Section III.8 - Emissions Certification Report [COMAR 26.11.01.05-1] and [COMAR 26.11.02.19C] and [COMAR 26.11.02.19D]

The Permittee shall certify actual annual emissions of regulated pollutant from the facility on a calendar year basis.

- a. The certification shall be on forms obtained from the Department and submitted to the Department not later than April 1 of the year following the year for which the certification is required;
- b. The individual making the certification shall certify that the information is accurate to the individual's best knowledge. The individual shall be:
 - (1). Familiar with each source for which the certifications forms are submitted, and
 - (2). Responsible for the accuracy of the emissions information:
- c. The Permittee shall maintain records necessary to support the emission certification including the following information if applicable:
 - (1). The total amount of actual emissions of each regulated pollutant and the total of all regulated pollutants;
 - (2). An explanation of the methods used to quantify the emissions and the operating schedules and production data that were used to determine emissions, including significant assumptions made;
 - (3). Amounts, types and analyses of all fuels used;
 - (4). Emission data from continuous emissions monitors that are required by this permit, including monitor calibration and malfunction information;
 - (5). Identification, description, and use records of all air pollution control equipment and compliance monitoring equipment including:
 - (a) Significant maintenance performed,
 - (b) Malfunctions and downtime, and
 - (c) Episodes of reduced efficiency of all equipment;
 - (6). Limitations on source operation or any work practice standards that significantly affect emissions; and
 - (7). Other relevant information as required by the Department.

Compliance Methods for the Above (Description and Citation):

The annual emission certification for the prior year reporting period was compiled and delivered to the Department by April 1st. All relevant records are on file in the office of MDOT MAA's Environmental Compliance Section.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): Plant Wide

Permit Term (Describe requirements and cross-reference)

Section III. 9 - Compliance Certification Report [COMAR 26.11.03.06G(6) and (7)]

The Permittee shall submit to the Department and EPA Region III a report certifying compliance with each term of this Part 70 permit including each applicable standard, emission limitation, and work practice for the previous calendar year by April 1 of each year.

a. The compliance certification shall include:

- (1). The identification of each term or condition of this permit which is the basis of the certification;
- (2). The compliance status;
- (3). Whether compliance was continuous or intermittent;
- (4). The methods used for determining the compliance status of each source, currently and over the reporting period; and
- (5). Any other information required to be reported to the Department that is necessary to determine the compliance status of the Permittee with this permit.

b. The Permittee shall submit the compliance certification reports to the Department and EPA simultaneously.

Compliance Methods for the Above (Description and Citation):

The Annual Compliance Certification was compiled for the prior year reporting period and delivered to the Department and EPA by April 1st. All relevant records are on file in the office of MDOT MAA's Environmental Compliance Section

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): Plant Wide

Permit Term (Describe requirements and cross-reference)

Section III.10 - Certification by Responsible Official [COMAR 26.11.02.02F]

All application forms, reports, and compliance certifications submitted pursuant to this permit shall be certified by a responsible official as to truth, accuracy, and completeness. The Permittee shall expeditiously notify the Department of an appointment of a new responsible official.

The certification shall be in the following form:

"I certify under penalty of law that this document and all attachments 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 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."

Compliance Methods for the Above (Description and Citation):

The appropriate language was used for the signatory in all cases.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): Plant Wide

Permit Term (Describe requirements and cross-reference)

Section III.11 - Sampling and Emission Testing Record Keeping [COMAR 26.11.03.06C(5)]

The Permittee shall gather and retain the following information when sampling and testing for compliance demonstrations:

- a. The location as specified in this permit, and the date and time that samples and measurements are taken;
- b. All pertinent operating conditions existing at the time that samples and measurement are taken;
- c. The date that each analysis of the sample or emissions test is performed and the name of the person taking the sample or performing the emission test;
- d. The identity of the Permittee, individual, or other entity that performed the analysis;
- e. The analytical techniques and methods used; and
- f. The results of each analysis.

Compliance Methods for the Above (Description and Citation):

As applicable, all testing performed complies with the required record keeping. A procedure for the performance of sampling and emission testing is in the Operations and Maintenance Procedures.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): Plant Wide

Permit Term (Describe requirements and cross-reference)

Section III.12 - General Recordkeeping [COMAR 26.11.03.06C(6)]

The Permittee shall retain records of all monitoring data and information that support the compliance certification for a period of five (5) years from the date that the monitoring, sample measurement, application, report or emissions test was completed or submitted to the Department. These records and support information shall include:

- a. All calibration and maintenance records;
- b. All original data collected from continuous monitoring instrumentation;
- c. Records which support the annual emissions certification; and
- d. Copies of all reports required by this permit.

Compliance Methods for the Above (Description and Citation):

All monitoring data and information is on file for at least five years and is housed in MDOT MAA's Environmental Compliance Section or with the MDOT MAA contractor that operates and maintains the equipment.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

A-COMP

Emission Unit ID(s): Plant Wide

Permit Term (Describe requirements and cross-reference)

Section III.13 - General Conformity [COMAR 26.11.26.09]

The Permittee shall comply with the General Conformity requirements of 40 CFR 93, Subpart B and COMAR 26.11.26.09.

Compliance Methods for the Above (Description and Citation):

BWI-Marshall complies with the General Conformity requirements.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): Plant Wide

Permit Term (Describe requirements and cross-reference)

Section III.14 - Asbestos Provisions [40 CFR 61, Subpart M]

The Permittee shall comply with 40 CFR 61, Subpart M when conducting any renovation or demolition activities at the facility.

Compliance Methods for the Above (Description and Citation):

All asbestos containing materials are handled in accordance with federal laws. All BWI-Marshall contracts for such activities reference these regulations. BWI-Marshall has in place policies and procedures for handling these materials in accordance with applicable requirements.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): Plant Wide

Permit Term (Describe requirements and cross-reference)

Section III.15 - Ozone Depleting Regulations [40 CFR 82, Subpart F]

The Permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for MVACs in subpart B:

- a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the prohibitions and required practices pursuant to 40 CFR 82.154 and 82.156.
- b. Equipment used during maintenance, service, repair or disposal of appliances shall comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- c. Persons performing maintenance, service, repairs or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
- d. Persons disposing of small appliances, MVACS, and MVAC-like appliances as defined in 40 CFR 82.152, shall comply with record keeping requirements pursuant to 40 CFR 82.155.
- e. Persons owning commercial or industrial process refrigeration equipment shall comply with leak repair requirements pursuant to 40 CFR 82.156.
- f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

Compliance Methods for the Above (Description and Citation):

BWI-Marshall complies with all regulations with respect to ozone depleting refrigerants. All technicians who provide maintenance, service, repair, or disposal of appliances are certified. Certification documentation is on file in the office of MDOT MAA contractor responsible for operating and maintaining this equipment. All refrigerant recovery and recycling equipment is certified and documentation of certification is on file in the office of the MDOT MAA contractor responsible for operating and maintaining this equipment.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-1, EU-2, EU-3

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-1.1A. - Control of Visible Emissions

[COMAR 26.11.09.05A(2) - Fuel Burning Equipment]

"Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity."

[COMAR 26.11.09.05A(3) - Exceptions. "Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if:

- (a). The visible emissions are not greater than 40 percent opacity; and
- (b). The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period."

Compliance Methods for the Above (Description and Citation):

There were no visible emissions during the reporting period. The operators perform periodic observations, especially as part of pre-season start up, or during routine maintenance checks. Refer to compliance method for Permit Term Section IV. Table IV-1.3A in this report.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-1, EU-2, EU-3

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-1.1B. - Control of Particulate Matter Emissions

Note: The PM requirements in this table only apply to EU-1 and EU-2.

40 CFR §60.43c(c) - Standard for particulate matter (PM)

“On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, wood, or oil and has a heat input capacity of 8.7 MW (30 MM Btu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than **20 percent opacity (6-minute average)**, except for one 6-minute period per hour of not more than 27 percent opacity.

40 CFR §60.43c(d) - Standard for particulate matter (PM)

“The PM and opacity standards under this section apply at all times, except during periods of startup, shutdown, or malfunction. “

Please note: Compliance with the "No Visible Emission" requirements of COMAR 26.11.09.05A(2) will be used to show compliance with 40 CFR §60.43c(c) and (d).

40 CFR §60.43c(e)(1) - Standard for particulate matter (PM)

“On and after the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels and has a heat input capacity of 8.7 MW (30 MM Btu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 13 ng/J (0.030 lb/ MMBtu) heat input, except as provided in paragraphs (e)(2), (e)(3), and (e)(4) of this section.”

40 CFR §60.43c(e)(4) - Standard for particulate matter (PM)

“On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, an owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that contains no more than **0.50 weight percent sulfur** or a mixture of 0.50 weight percent sulfur oil with other fuels not subject to a PM standard under § 60.43c and not using a post combustion technology (except a wet scrubber) to reduce PM or SO₂ emissions is not subject to the PM limit in this section.”

Compliance Methods for the Above (Description and Citation):

There were no visible emissions observed during the reporting period. The operators perform periodic observations, especially as part of pre-season start up, or during routine maintenance checks. Refer to compliance method for Permit Term Section IV. Table IV-1.3A in this report.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-1, EU-2, EU-3

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-1.1C. - Control of Sulfur Oxides

COMAR 26.11.09.07A(2) - Sulfur Content Limitations for Fuel

"A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV: (b) Distillate fuel oils, 0.3 percent."

40 CFR §60.42c(d) - Standard for sulfur dioxide (SO₂)

"On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of 215 ng/J (0.50 lb/MMBtu) heat input; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The percent reduction requirements are not applicable to affected facilities under this paragraph."

40 CFR §60.42c(h) - Standard for sulfur dioxide (SO₂)

"For affected facilities listed under paragraphs (h)(1), (2), or (3) of this section, compliance with the emission limits or fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier, as described under §60.48c(f), as applicable.

(1) Distillate oil-fired affected facilities with heat input capacities between 2.9 and 29 MW (10 and 100 MMBtu/hr)."

40 CFR §60.42c(i) - Standard for sulfur dioxide (SO₂)

"The SO₂ emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction."

Note: Compliance with the "Sulfur Content Limitations for Fuel" requirement of COMAR 26.11.09.07A(2) will be used to show compliance with 40 CFR §60.42c(d).

Compliance Methods for the Above (Description and Citation):

All boiler fuel is certified by the supplier to contain less than 0.3 wt% (300 ppm) sulfur. Fuel supplier's certification information is on file as required.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-1, EU-2, EU-3

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-1.1D. - Control of Nitrogen Oxides

COMAR 26.11.09.08B(5) - Operator Training

- a. For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.
- b. The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department.

COMAR 26.11.09.08E - Requirements for Fuel-Burning Equipment with a Rated Heat Input Capacity of 100 MMBtu Per Hour or Less

A person who owns or operates fuel-burning equipment with a rated heat input capacity of 100 MMBtu per hour or less shall:

- (1) Submit to the Department an identification of each affected installation, the rated heat input capacity of each installation, and the type of fuel burned in each;
- (2) Perform a combustion analysis for each installation at least once each year and optimize combustion based on the analysis;
- (3) Maintain the results of the combustion analysis at the site for at least 2 years and make this data available to the Department and the EPA upon request;
- (4) Once every 3 years, require each operator of the installation to attend operator training programs on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and
- (5) Prepare and maintain a record of training program attendance for each operator at the site, and make these records available to the Department upon request.

Compliance Methods for the Above (Description and Citation):

Combustion analysis and boiler optimization are performed by outside contractor (Preferred Utilities Manufacturing), recorded and kept on file. The contractor also provides required training program and maintains records.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-1, EU-2, EU-3

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-1.1E. - Operational Limitation

In order to exempt the three (3) boilers (2 - 55 MMBtu/hr and 1 - 25 MMBtu/hr) from the requirements of COMAR 26.11.17 – Nonattainment Provisions for Major New Sources and Modifications, and prevent the boilers from operating as a "Major Modification" with a "significant" net emissions increase of NO_x as defined under COMAR 26.11.17.01B, the Permittee shall limit the NO_x emissions from the three (3) boilers to less than 25 tons per year, for any 12-month consecutive period. **[Reference: PTC 003-0208-5-0681, 5-0682, & 5-0683 issued January 13, 2009]**

Compliance Methods for the Above (Description and Citation):

The 12-month rolling average of NO_x emissions was below 25 tons during the reporting period.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-1, EU-2, EU-3

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-1.2B. - Testing Requirements - Control of Particulate Matter Emissions

Note: The PM requirements in this table only apply to EU-1 and EU-2.

40 CFR §60.45c(d) - Compliance and performance test methods and procedures for particulate matter
The owner or operator of an affected facility seeking to demonstrate compliance under §60.43c(e)(4) shall follow the applicable procedures under §60.48c(f).

Compliance Methods for the Above (Description and Citation):

Only department-approved methods for determining particulate matter emissions have been used.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-1, EU-2, EU-3

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-1.2C. - Testing Requirements - Control of Sulfur Oxides

40 CFR §60.44c(h) - Compliance and performance test methods and procedures for sulfur dioxide

For affected facilities subject to §60.42c(h)(1), (2), or (3) where the owner or operator seeks to demonstrate compliance with the SO₂ standards based on fuel supplier certification, the performance test shall consist of the certification from the fuel supplier, as described under §60.48c(f), as applicable.

Compliance Methods for the Above (Description and Citation):

Fuel supplier's certification records are on file.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-1, EU-2, EU-3

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-1.2D. - Testing Requirements - Control of Nitrogen Oxides

The Permittee shall perform a stack test on the three (3) Indeck boilers both on oil and natural gas, once during the term of this permit. The Permittee shall submit a test protocol to the Department for approval at least 30 days before the scheduled test date. The Permittee shall submit all test results and supporting data from the stack tests to the Department within 45 days after the stack tests are conducted. **[Reference: COMAR 26.11.03.06C]**

The Permittee shall perform a combustion analysis for each installation at least once each calendar year and optimize combustion based on the analysis. **[Reference: COMAR 26.11.09.08E(2)]**

Compliance Methods for the Above (Description and Citation):

Stack test was completed on February 6-8, 2018. Test protocol was submitted to and approved by the Department. Test results were submitted to the Department within 45 days (March 2018). Next testing will occur during the term of the current permit.

Combustion analysis and boiler optimization are performed by outside contractor (Preferred Utilities Manufacturing), recorded and kept on file. The contractor also provides required training program and records of attendance are on file in the MAC building.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-1, EU-2, EU-3

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-1.3A - Monitoring Requirements - Control of Visible Emissions

The Permittee shall:

- (1) Properly operate and maintain the boilers in a manner to prevent visible emission; and
- (2) Verify no visible emissions when burning No. 2 fuel oil. The Permittee shall perform a visual observation for a 6-minute period once for each 168 hours that the boiler burns oil or at a minimum of once per year.

The Permittee shall perform the following, if emissions are visible:

- (1) Inspect combustion control system and boiler operations;
- (2) Perform all necessary adjustments and/or repairs to the boiler within 48 hours, so that visible emissions are eliminated;
- (3) Document in writing the results of the inspections, adjustments and/or repairs to the boiler; and
- (4) After 48 hours, if the required adjustments and/or repairs have not eliminated the visible emissions, perform Method 9 observations once daily for 18 minutes until corrective actions have eliminated the visible emissions.

[Reference: COMAR 26.11.03.06C]

Compliance Methods for the Above (Description and Citation):

Required 6-minute observation(s) were completed by operating personnel and on file with MDOT MAA's Environmental Compliance Section – No visible emissions were noted; therefore, no Method 9 observations were required.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-1, EU-2, EU-3

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-1.3B - Monitoring Requirements - Control of Particulate Matter Emissions

Note: The PM requirements in this table only apply to EU-1 and EU-2.

40 CFR §60.47c(c) - Emission monitoring for particulate matter

Affected facilities that burn only distillate oil that contains no more than 0.5 weight percent sulfur and/or liquid or gaseous fuels with potential sulfur dioxide emission rates of 26 ng/J (0.06 lb/MMBtu) heat input or less and that do not use a post-combustion technology to reduce SO₂ or PM emissions and that are subject to an opacity standard in §60.43c(c) are not required to operate a COMS if they follow the applicable procedures under §60.48c(f).

Compliance Methods for the Above (Description and Citation):

Continuous monitoring is not required, and fuel supplier's certification records are on file.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-1, EU-2, EU-3

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-1.3C. - Monitoring Requirements - Control of Sulfur Oxides

40 CFR §60.46c(e) - Emission monitoring for sulfur dioxide

(e) The monitoring requirements of paragraphs (a) and (d) of this section shall not apply to affected facilities subject to §60.42c(h) (1), (2), or (3) where the owner or operator of the affected facility seeks to demonstrate compliance with the SO₂ standards based on fuel supplier certification, as described under §60.48c(f), as applicable.

Compliance Methods for the Above (Description and Citation):

Fuel supplier's certification information is on file with MDOT MAA's Environmental Compliance Section.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-1, EU-2, EU-3

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-1.3D. - Monitoring Requirements - Control of Nitrogen Oxides

The Permittee shall measure the NO_x content of the flue gases from each boiler for a 5-minute period for every 168 hours of operation on fuel oil. The Permittee shall use an analyzer that is properly calibrated and maintained in accordance with the vendor specification. The analyzer shall be the type approved by the Department. [Reference: COMAR 26.11.03.06C]

Compliance Methods for the Above (Description and Citation):

Testing completed as required.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-1, EU-2, EU-3

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-1.4 - Recordkeeping Requirements

All records required by this permit must be maintained for a period of at least 5 years.

[Reference: COMAR 26.11.03.06C(5)(g)]

Compliance Methods for the Above (Description and Citation):

Required records since the issuance of the permits are on file with MDOT MAA's Environmental Compliance Section or with the MDOT MAA contractor responsible for operating and maintaining the equipment.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-1, EU-2, EU-3

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-1.4A. - Recordkeeping Requirements - Control of Visible Emissions

The Permittee shall:

- (1) Maintain an operation manual and prevention maintenance plan on site;
- (2) Maintain a record of the maintenance performed that relates to combustion performance;
- (3) Maintain a log of visible emissions observations performed and make it available to the Department's representative upon request;
- (4) Maintain a record of the hours that No. 2 fuel oil is burned.

[Reference: COMAR 26.11.03.06C].

Compliance Methods for the Above (Description and Citation):

Operation manual and maintenance plan has been developed.

Records of all required maintenance are on file as part of MDOT MAA's work order tracking system with MDOT MAA Division of Operations and Maintenance.

Logs of visible emissions observations are on file.

Fuel use logs are maintained and on file with the contractor that operates the equipment and MDOT MAA's Environmental Compliance Section.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

A-COMP

Emission Unit ID(s): EU-1, EU-2, EU-3

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-1.4B. - Recordkeeping Requirements - Control of Particulate Matter Emissions

Note: The PM requirements in this table apply only to EU-1 and EU-2.

See Section 1.4C, Record Keeping Requirements - Control of Sulfur Oxides.

Compliance Methods for the Above (Description and Citation):

Fuel supplier's certification records are on file with MDOT MAA's Environmental Compliance Section.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-1, EU-2, EU-3

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-1.4C. - Recordkeeping Requirements - Control of Sulfur Oxides

The Permittee shall maintain records of fuel supplier's certification [**Reference: COMAR 26.11.03.06C**]

Fuel supplier certification shall include the following information:

- (1) For distillate oil:
- (i) The name of the oil supplier;
 - (ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in §60.41c; and
 - (iii) The sulfur content of the oil. [**Reference: 40 CFR §60.48c(f)**]

Compliance Methods for the Above (Description and Citation):

Fuel supplier's certification records are on file with MDOT MAA's Environmental Compliance Section.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-1, EU-2, EU-3

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-1.4D. - Recordkeeping Requirements - Control of Nitrogen Oxides

The Permittee shall maintain the results of the NO_x stack tests and the NO_x analyzer readings for at least 5 years and make them available to the Department upon request **[Reference: COMAR 26.11.03.06C]** The Permittee shall maintain a record of training program attendance for each operator at the site. **[Reference: COMAR 26.11.09.08E(5)]**

Compliance Methods for the Above (Description and Citation):

Stack tests will be completed within the permit term as specified in the permit and reports/records will be stored on file with MDOT MAA's Environmental Compliance Section for 5 years. Operator training records are on file with MDOT MAA contractor that is responsible for the maintenance and operation of the equipment.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-1, EU-2, EU-3

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-1.4E. - Recordkeeping Requirements - Operational Limit

In order to demonstrate compliance with the emissions limitations requirement for exemption from New Source Review (NSR), the Permittee shall calculate and record the emissions from the three (3) boilers, for each previous calendar month and a total for the previous 12 consecutive calendar months. The calculations and records shall be updated monthly, within the first 15 days of each following month. **[Reference: PTC 003-0208-5-0681, 5-0682, & 5-0683 issued January 13, 2009]**

Compliance Methods for the Above (Description and Citation):

Fuel use logs are maintained by the contractor that operates the equipment and are on file in MDOT MAA's Environmental Compliance Section. Calculations are maintained by MDOT MAA's Environmental Compliance Section.

Status (Check one): Intermittent Compliance Continuous Compliance

A-COMP

Emission Unit ID(s): EU-1, EU-2, EU-3

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-1.5A. - Reporting Requirements - Control of Visible Emissions

The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations".

Compliance Methods for the Above (Description and Citation):

No visible emissions were observed during the reporting period.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-1, EU-2, EU-3

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-1.5B. - Reporting Requirements - Control of Particulate Matter Emissions

Note: The PM requirements in this table apply only to EU-1 and EU-2.

The reporting period for the reports under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period. **[Reference: 40 CFR §60.48c(j)]**

Compliance Methods for the Above (Description and Citation):

No non-compliance events occurred during the reporting period.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-1, EU-2, EU-3

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-1.5C. - Reporting Requirements - Control of Sulfur Oxides

The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period. **[Reference: 40 CFR §60.48c(j)]**

Compliance Methods for the Above (Description and Citation):

No non-compliance events occurred during the reporting period.

Status (Check one): Intermittent Compliance Continuous Compliance

A-COMP

Emission Unit ID(s): EU-1, EU-2, EU-3

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-1.5D. - Reporting Requirements - Control of Nitrogen Oxides

The Permittee shall report the results of NO_x testing on these boilers along with supporting data from the stack test within 45 days of the completion of the stack test. **[Reference: COMAR 26.11.03.06C]**

Compliance Methods for the Above (Description and Citation):

Stack test was completed on February 6-8, 2018. Test protocol was submitted to and approved by the Department. Test results were submitted to the Department within 45 days (March 2018). Next testing will occur during the term of the current permit.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-1, EU-2, EU-3

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-1.5E. - Reporting Requirements - Operational Limit

The Permittee shall submit records of the quantity and type of fuels burned with the annual emission certification report. See Permit condition 8 of Section III.

Compliance Methods for the Above (Description and Citation):

Fuel use reports are included with the annual emission certification.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

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Emission Unit ID(s): EU-31

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-2.1A. – Control of Visible Emissions

COMAR 26.11.09.05A(2) - Fuel Burning Equipment

“Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity.”

COMAR 26.11.09.05A(3) – Exceptions

“Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if:

- (a). The visible emissions are not greater than 40 percent opacity; and
- (b). The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period.”

Compliance Methods for the Above (Description and Citation):

There were no visible emissions during the reporting period.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-31

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-2.1B. - Control of Sulfur Oxides

COMAR 26.11.09.07A(2) - Sulfur Content Limitations for Fuel]

“A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV: (b) Distillate fuel oils, 0.3 percent.”

Compliance Methods for the Above (Description and Citation):

All boiler fuel is certified by the supplier to contain less than 0.3 wt% (300 ppm) sulfur. Fuel supplier's certification information is on file as required.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-31

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-2.1C. - Control of Nitrogen Oxides

COMAR 26.11.09.08B(5) - Operator Training

- (a) "For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.
- (b) The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department."

COMAR 26.11.09.08E - Requirements for Fuel-Burning Equipment with a Rated Heat Input Capacity of 100 MMBtu Per Hour or Less

"A person who owns or operates fuel-burning equipment with a rated heat input capacity of 100 Million Btu per hour or less shall:

- (1). Submit to the Department an identification of each affected installation, the rated heat input capacity of each installation, and the type of fuel burned in each;
- (2). Perform a combustion analysis for each installation at least once each year and optimize combustion based on the analysis;
- (3). Maintain the results of the combustion analysis at the site for at least 2 years and make this data available to the Department and the EPA upon request;
- (4). Once every 3 years, require each operator of the installation to attend operator training programs on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and
- (5). Prepare and maintain a record of training program attendance for each operator at the site, and make these records available to the Department upon request."

Compliance Methods for the Above (Description and Citation):

Combustion analysis and boiler optimization are performed by outside contractor (Preferred Utilities Manufacturing), recorded and kept on file. The contractor also provides required training program and maintains records.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-31

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-2.1D. - Operational Limitation

The Permittee shall only burn No. 2 fuel oil in EU-31 unless the Permittee applies for and receives an approval or permit from the Department to burn an alternate fuel. **[Reference: COMAR 26.11.02.09A]**

Compliance Methods for the Above (Description and Citation):

Only No. 2 fuel oil has been burned in the boiler.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-31

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-2.2C. - Testing Requirements - Control of Nitrogen Oxides

The Permittee shall perform a combustion analysis once a year [Reference: COMAR 26.11.09.08E(2)].

Compliance Methods for the Above (Description and Citation):

Combustion analysis was completed and operation optimized.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-31

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-2.3A. - Monitoring Requirements - Control of Visible Emissions

The Permittee shall:

- (1). Properly operate and maintain the boilers in a manner to prevent visible emission; and
- (2). Verify no visible emissions when burning No. 2 fuel oil. The Permittee shall perform a visual observation for a 6-minute period once for each 168 hours that the boiler burns oil or at a minimum of once per year.

The Permittee shall perform the following, if emissions are visible:

- (1). Inspect combustion control system and boiler operations,
- (2). Perform all necessary adjustments and/or repairs to the boiler within 48 hours, so that visible emissions are eliminated;
- (3). Document in writing the results of the inspections, adjustment and/or repairs to the boiler; and
- (4). After 48 hours, if required adjustments and/or repairs had not eliminated the visible emission, perform Method 9 observations once daily for 18 minutes until corrective actions have eliminated the visible emissions.

[Reference: COMAR 26.11.03.06C].

Compliance Methods for the Above (Description and Citation):

Required 6-minute observation(s) were completed by operating personnel and on file with MDOT MAA's Environmental Compliance Section – No visible emissions were noted; therefore, no Method 9 observations were required.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-31

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-2.3B. - Monitoring Requirements - Control of Sulfur Oxides

The Permittee shall obtain a certification from the fuel supplier indicating that the oil complies with the limitation on the sulfur content of the fuel oil. **[Reference: COMAR 26.11.03.06C].**

Compliance Methods for the Above (Description and Citation):

Fuel supplier's certification records are on file.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-31

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-2.3C. - Monitoring Requirements - Control of Nitrogen Oxides

The Permittee shall optimize combustion based on the annual combustion analysis. **[Reference: COMAR 26.11.09.08E(2)].**

Compliance Methods for the Above (Description and Citation):

Combustion analysis and boiler optimization are performed by outside contractor (Preferred Utilities Manufacturing), recorded and kept on file. The contractor also provides required training program and records of attendance are on file with the contractor.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-31

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-2.4 - Recordkeeping Requirements

All records required by this permit must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)]**

Compliance Methods for the Above (Description and Citation):

Required records are on file and maintained for at least 5 years.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-31

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-2.4A. - Recordkeeping Requirements - Control of Visible Emissions

The Permittee shall:

- (1). Maintain an operation manual and prevention maintenance plan on site;
- (2). Maintain a record of the maintenance performed that relates to combustion performance;
- (3). Maintain a log of visible emissions observations performed and make it available to the Department's representative upon request;
- (4). Maintain a record of the hours that No. 2 fuel oil is burned.

[Reference: COMAR 26.11.03.06C].

Compliance Methods for the Above (Description and Citation):

Operation manual and maintenance plan has been developed. Records of all required maintenance are on file. Log of visible emissions observations are on file. Fuel use logs are maintained and on file.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-31

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-2.4B. - Recordkeeping Requirements - Control of Sulfur Oxides

The Permittee shall maintain records of fuel supplier's certification and shall make records available to the Department upon request. **[Reference: COMAR 26.11.03.06C].**

Compliance Methods for the Above (Description and Citation):

Fuel supplier's certification records are maintained on file.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-31

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-2.4C. - Recordkeeping Requirements - Control of Nitrogen Oxides

The Permittee shall maintain:

- (1). Records of the results of the annual combustion analysis on site. **[Reference: COMAR 26.11.09.08E(3)]**
- (2). Records of training program attendance for each operator at the site.
[Reference: COMAR 26.11.09.08E(5)]

Compliance Methods for the Above (Description and Citation):

Records of required combustion analysis and training are on file.

Status (Check one): Intermittent Compliance Continuous Compliance

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Emission Unit ID(s): EU-31

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-2.4D. - Recordkeeping Requirements - Operational Limit

The Permittee shall maintain records of the quantity of fuel burned.

[Reference: COMAR 26.11.02.19C(1)(c)]

Compliance Methods for the Above (Description and Citation):

Fuel use logs are on file.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-31

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-2.5A. - Reporting Requirements - Control of Visible Emissions

The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations".

Compliance Methods for the Above (Description and Citation):

No visible emissions were observed during the reporting period.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-31

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-2.5B. - Reporting Requirements - Control of Sulfur Oxides

The Permittee shall report fuel supplier certification to the Department upon request.

[Reference: COMAR 26.11.09.07C]

Compliance Methods for the Above (Description and Citation):

Fuel supplier certifications are on file and will be reported upon request.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-31

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-2.5C. - Reporting Requirements - Control of Nitrogen Oxides

The Permittee shall submit:

- (1). The results of combustion analysis to the department and the EPA upon request.
[Reference: COMAR 26.11.09.08E(3)].
- (2). A record of training program attendance for each operator to the Department upon request.
[Reference: COMAR 26.11.09.08E(5)]

Compliance Methods for the Above (Description and Citation):

The results of each combustion analysis are submitted as required and operator training records are on file.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-31

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-2.5D. - Reporting Requirements - Operational Limit

The Permittee shall submit records of the quantity of fuel burned with the annual emission certification report. See Permit condition 8 of Section III.

Compliance Methods for the Above (Description and Citation):

Fuel use reports are included with the annual emission certification.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-31, EU-1, EU-2, EU-3

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-2a.1. – Applicable Standards/Limits - Control of HAPs

40 CFR Part 63 JJJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

40 CFR §63.11193 – Am I subject to this subpart?

“You are subject to this subpart if you own or operate an industrial, commercial, or institutional boiler as defined in §63.11237 that is located at, or is part of, an area source of hazardous air pollutants (HAP), as defined in §63.2, except as specified in §63.11195.”

40 CFR §63.11194(a) – What is the affected source of this subpart?

“This subpart applies to each new, reconstructed, or existing affected source as defined in paragraphs (a)(1) and (2) of this section.

- 1) The affected source of this subpart is the collection of all existing industrial, commercial, and institutional boilers within a subcategory, as listed in §63.11200 and defined in §63.11237, located at an area source.
- 2) The affected source of this subpart is each new or reconstructed industrial, commercial, or institutional boiler within a subcategory, as listed in §63.11200 and as defined in §63.11237, located at an area source.”

40 CFR §63.11194(b) – What is the affected source of this subpart?

“An affected source is an existing source if you commenced construction or reconstruction of the affected source on or before June 4, 2010.”

40 CFR §63.11194(c) – What is the affected source of this subpart?

“An affected source is a new source if you commenced construction of the affected source after June 4, 2010, and the boiler meets the applicability criteria at the time you commence construction.”

40 CFR §63.11196(a) – What are my compliance dates?

“If you own or operate an existing affected boiler, you must achieve compliance with the applicable provisions in this subpart as specified in paragraphs (a)(1) through (3) of this section.

- (1) If the existing affected boiler is subject to a work practice or management practice standard of a tune-up, you must achieve compliance with the work practice or management practice standard no later than March 21, 2014.
- (2) *Not Applicable.*
- (3) If the existing affected boiler is subject to the energy assessment requirement, you must achieve compliance with the energy assessment requirement no later than March 21, 2014.

40 CFR §63.11196(c) – What are my compliance dates?

“If you start up a new affected source after May 20, 2011, you must achieve compliance with the provisions of this subpart upon startup of the affected source.”

40 CFR §63.11201(b) – What standards must I meet?

“You must comply with each work practice standard, emission reduction measure, and management practice specified in Table 2 to this subpart that applies to your boiler. An energy assessment completed on or after January 1, 2008 that meets or is amended to meet the energy assessment requirements in Table 2 to this subpart satisfies the energy assessment requirement. A facility that operates under any energy management program established through energy management systems compatible with ISO 50001, that includes the affected units, also satisfies the energy assessment requirement.”

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40 CFR §63.11201(d) – What standards must I meet?

“These standards apply at all times the affected boiler is operating, except during periods of startup and shutdown as defined in §63.111237, during which time you must comply with only Table 2 to this subpart.” As stated in §63.11201, you must comply with the following applicable work practice standards, emission reduction measures, and management practices:

Existing oil-fired boilers with heat input capacity greater than 5 MMBtu/hr that do not meet the definition of seasonal boiler or limited-use boiler, or use an oxygen trim system that maintains an optimum air-to-fuel ratio. EU-1, EU-2, EU-3: “Conduct an initial tune-up as specified in §63.11214, and conduct a tune-up of the boiler biennially as specified in §63.11223”

New oil-fired boilers with heat input capacity of equal to or less than 5 MMBtu/hr. EU-31: “Conduct a tune-up of the boiler every 5 years specified in §63.11223.”

“Existing coal-fired, biomass-fired, or oil-fired boilers (units with heat input capacity of 10 MMBtu/hr and greater), not including limited-use boilers (EU-1, EU-2, EU-3): “Must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table satisfies the energy assessment requirement. Energy assessor approval and qualification requirements are waived in instances where past or amended energy assessments are used to meet the energy assessment requirements. A facility that operated under an energy management program developed according to the ENERGY STAR guidelines for energy management or compatible with ISO 50001 for at least 1 year between January 1, 2008, and the compliance date specified in §63.11196 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items (1) to (4) appropriate for the on-site technical hours listed in §63.11237:

1. A visual inspection of the boiler system,
2. An evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints,
3. An inventory of major energy use systems consuming energy from affected boiler(s) and which are under control of the boiler owner or operator,
4. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage,
5. A list of major energy conservation measures that are within the facility's control,
6. A list of the energy savings potential of the energy conservation measures identified, and
7. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.”

Compliance Methods for the Above (Description and Citation):

All boilers comply with the applicable requirements. Tune-ups of EU-1 and EU-2 were performed on 1/29/2021. A tune-up of EU-3 was performed on 2/1/2021. A tune-up of EU-31 was performed on 11/13/2019. No tune-up was required in 2021 for EU-31.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-31, EU-1, EU-2, EU-3

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-2a.2. – Testing Requirements - Control of HAPs

40 CFR Part 63 JJJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

40 CFR §63.11210(c) – What are my initial compliance requirements and by what date must I conduct them?

"For existing affected boilers that have applicable work practice standards, management practices, or emission reduction measures, you must demonstrate initial compliance no later than the compliance date that is specified in §63.11196 and according to the applicable provisions in §63.7(a)(2), except as provided in paragraph (j) of this section."

40 CFR §63.11210(g) – What are my initial compliance requirements and by what date must I conduct them?

"For new or reconstructed affected boilers that have applicable work practice standards or management practices, you are not required to complete an initial performance tune-up, but you are required to complete the applicable biennial or 5-year tune-up as specified in §63.11223 no later than 25 months or 61 months, respectively, after the initial startup of the new or reconstructed affected source."

40 CFR §63.11214(b) – How do I demonstrate initial compliance with the work practice standard, emission reduction measures, and management practice?

"If you own or operate an existing or new biomass-fired boiler or an existing or new oil-fired boiler, you must conduct a performance tune-up according to §63.11210(c) or (g), as applicable, and §63.11223(b). If you own or operate an existing biomass-fired boiler or existing oil-fired boiler, you must submit a signed statement in the Notification of Compliance Status report that indicates that you conducted an initial tune-up of the boiler."

40 CFR §63.11214(c) – How do I demonstrate initial compliance with the work practice standard, emission reduction measures, and management practice?

"If you own or operate an existing affected boiler with a heat input capacity of 10 million Btu per hour or greater, you must submit a signed certification in the Notification of Compliance Status report that an energy assessment of the boiler and its energy use systems was completed according to Table 2 to this subpart and that an assessment is an accurate depiction of your facility at the time of the assessment or that the maximum number of on-site technical hours specified in the definition of energy assessment applicable to the facility has been expended."

40 CFR §63.11223(a) – How do I demonstrate continuous compliance with the work practice and management standards?

"For affected sources subject to the work practice standard or the management practices of a tune-up, you must conduct a performance tune-up according to paragraph (b) of this section and keep records as required in §63.11225(c) to demonstrate continuous compliance. You must conduct the tune-up while burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up."

40 CFR §63.11223(b) – How do I demonstrate continuous compliance with the work practice and management standards?

"Except as specified in paragraphs (c) through (f) of this section, you must conduct a tune-up of the boiler biennially to demonstrate continuous compliance as specified in paragraphs (b)(1) through (7) of this section. Each biennial tune-up must be conducted no more than 25 months after the previous tune-up. For a new or reconstructed boiler, the first biennial tune-up must be no later than 25 months after the initial startup of the new or reconstructed boiler."

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- (1) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection.
- (2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.
- (3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection.
- (4) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject.
- (5) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.
- (6) Maintain on-site and submit, if requested by the Administrator, a report containing the information in paragraphs (b)(6)(i) through (iii) of this section.
 - i. The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler.
 - ii. A description of any corrective actions taken as a part of the tune-up of the boiler.
 - iii. The type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.
- (7) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup."

40 CFR §63.11223(e) – How do I demonstrate continuous compliance with the work practice and management standards?

"Oil-fired boilers with a heat input capacity of equal to or less than 5 million Btu per hour must conduct a tune-up every 5 years as specified in paragraphs (b)(1) through (7) of this section. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed oil-fired boiler with a heat input capacity of equal to or less than 5 million Btu per hour, the first 5-year tune-up must be no later than 61 months after the initial startup. You may delay the burner inspection specified in paragraph (b)(1) of this section and inspection of the system controlling the air-to-fuel ratio specified in paragraph (b)(3) of this section until the next scheduled unit shutdown, but you must inspect each burner system controlling the air-to-fuel ratio at least once every 72 months."

Compliance Methods for the Above (Description and Citation):

All boilers comply with the applicable requirements. Tune-ups of EU-1 and EU-2 were performed on 1/29/2021. A tune-up of EU-3 was performed on 2/1/2021. A tune-up of EU-31 was performed on 11/13/2019. No tune-up was required in 2021 for EU-31.

Status (Check one): Intermittent Compliance Continuous Compliance

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Emission Unit ID(s): EU-31, EU-1, EU-2, EU-3

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-2a.3. – Monitoring Requirements - Control of HAPs

40 CFR Part 63 JJJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

40 CFR §63.11205(a) – What are my general requirements for complying with this subpart?

"At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source."

Compliance Methods for the Above (Description and Citation):

The boilers are properly maintained and operated to ensure compliance.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-31, EU-1, EU-2, EU-3

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-2a.4. – Record Keeping Requirements - Control of HAPs

40 CFR Part 63 JJJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

40 CFR §63.11225(c) – What are my notification, reporting, and recordkeeping requirements?

"You must maintain the records specified in paragraphs (c)(1) through (7) of this section.

- (1) As required in §63.10(b)(2)(xiv), you must keep a copy of each notification and report that you submitted to comply with this subpart and all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted.
- (2) You must keep records to document conformance with the work practices, emission reduction measures, and management practices required by §63.11214 and §63.11223 as specified in paragraphs (c)(2)(i) through (vi) of this section.
 - i. Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned."
 - iii. For each boiler required to conduct an energy assessment, you must keep a copy of the energy assessment report.
- (3) *Not applicable.*
- (4) "Records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment."
- (5) "Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in §63.11205(a), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation."
- (6) *Not applicable.*
- (7) *Not applicable.*

40 CFR §63.11225(d) – What are my notification, reporting, and recordkeeping requirements?

"Your records must be in a form suitable and readily available for expeditious review. You must keep each record for 5 years following the date of each recorded action. You must keep each record on-site or be accessible from a central location by computer or other means that instantly provide access at the site for at least 2 years after the date of each recorded action. You may keep the records off site for the remaining 3 years."

Compliance Methods for the Above (Description and Citation):

All records are maintained on site.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-31, EU-1, EU-2, EU-3

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-2a.5. – Reporting Requirements - Control of HAPs

40 CFR Part 63 JJJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

40 CFR §63.11225 – What are my notification, reporting, and recordkeeping requirements?

- (a). "You must submit the notifications specified in paragraphs (a)(1) through (5) of this section to the administrator.
- (1) You must submit all of the notifications in §§63.7(b); 63.8(e) and (f); and 63.9(b) through (e), (g), and (h) that apply to you by the dates specified in those sections except as specified in paragraphs (a)(2) and (4) of this section.
 - (2) An Initial Notification must be submitted no later than January 20, 2014 or within 120 days after the source becomes subject to the standard."
 - (3) *Not applicable.*
 - (4) "You must submit the Notification of Compliance Status no later than 120 days after the applicable compliance date specified in §63.11196 unless you own or operate a new boiler subject only to a requirement to conduct a biennial or 5-year tune-up or you must conduct a performance stack test. If you own or operate a new boiler subject to a requirement to conduct a tune-up, you are not required to prepare and submit a Notification of Compliance Status for the tune-up. If you must conduct a performance stack test, you must submit the Notification of Compliance Status within 60 days of completing the performance stack test. You must submit the Notification of Compliance Status in accordance with paragraphs (a)(4)(i) and (vi) of this section. The Notification of Compliance Status must include the information and certification(s) of compliance in paragraphs (a)(4)(i) through (v) of this section, as applicable, and signed by a responsible official.
 - i. You must submit the information required in §63.9(h)(2), except the information listed in §63.9(h)(2)(i)(B), (D), (E), and (F). If you conduct any performance tests or CMS performance evaluations, you must: submit that data as specified in paragraph (e) of this section. If you conduct any opacity or visible emission observations, or other monitoring procedures or methods, you must submit that data to the Administrator at the appropriate address listed in §63.13
 - ii. "This facility complies with the requirements in §63.11214 to conduct an initial tune-up of the boiler."
 - iii. "The facility has had an energy assessment performed according to §63.11214(c).
 - vi. The notification must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written Notification of Compliance Status must be submitted to the Administrator at the appropriate address listed in §63.13.
 - (5) *Not Applicable.*
- (b). "You must prepare, by March 1 of each year, and submit to the delegated authority upon request, an annual compliance certification report for the previous calendar year containing the information specified in paragraphs (b)(1) through (4) of this section. You must submit the report by March 15 if you had any instance described by paragraph (b)(3) of this section. For boilers that are subject only to the energy assessment requirement and/or a requirement to conduct a biennial or 5-year tune-up according to §63.11223(a) and not subject to emission limits or operating limits, you may prepare only a biennial or 5-year compliance report as specified in paragraphs (b)(1) and (2) of this section.
- (1) Company name and address.
 - (2) Statement by a responsible official, with the official's name, title, phone number, email address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart. Your notification must include the following certification(s) of compliance, as applicable, and signed by a responsible official:

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- i. "This facility complies with the requirements in §63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler."
 - ii. "For units that do not qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act: "No secondary materials that are solid waste were combusted in any affected unit.:""
 - iii. This facility complies with the requirement in §§60.11214(d) and 63.11223(g) to minimize the boiler's time spend during startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available."
- (3) If the source experiences any deviations from the applicable requirements during the reporting period, include a description of deviations, the time periods during which the deviations occurred, and the corrective actions taken.

Compliance Methods for the Above (Description and Citation):

All submittals have been made.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-19, EU-20, EU-23, EU-24, EU-25, EU-26, EU-27, EU-28, and EU-30

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-3.1A. - Control of Visible Emissions

COMAR 26.11.09.05A(2)- Fuel Burning Equipment

"Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity."

COMAR 26.11.09.05A(3) - Exceptions.

Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if:

- (a) The visible emissions are not greater than 40 percent opacity; and
- (b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period.

Compliance Methods for the Above (Description and Citation):

There were no visible emissions during the reporting period. The emission units above operated only on natural gas in 2021.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-19, EU-20, EU-23, EU-24, EU-25, EU-26, EU-27, EU-28, and EU-30

Permit Term (Describe requirements and cross-reference)

Section IV-3.1B. - Control of Nitrogen Oxides

COMAR 26.11.09.08B(5) - Operator Training.

- (a) For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.
- (b) The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department.

COMAR 26.11.09.08E. - Requirements for Fuel-Burning Equipment with a Rated Heat Input Capacity of 100 Million Btu Per Hour or Less. [EU-19, EU-20, EU-23, EU-24, EU-25, and EU-26 only]

A person who owns or operates fuel-burning equipment with a rated heat input capacity of 100 Million Btu per hour or less shall:

- (1). Submit to the Department an identification of each affected installation, the rated heat input capacity of each installation, and the type of fuel burned in each;
- (2). Perform a combustion analysis for each installation at least once each year and optimize combustion based on the analysis;
- (3). Maintain the results of the combustion analysis at the site for at least 2 years and make this data available to the Department and the EPA upon request;
- (4). Once every 3 years, require each operator of the installation to attend operator training programs on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and
- (5). Prepare and maintain a record of training program attendance for each operator at the site, and make these records available to the Department upon request.

COMAR 26.11.09.08F. - Requirements for Space Heaters [EU-27, EU-28, and EU-30 only]

- (1) A person who owns or operates a space heater as defined in Regulation .01B of this chapter shall:
 - (a) Submit to the Department a list of each affected installation on the premises and the types of fuel used in each installation;
 - (b) Develop an operating and maintenance plan to minimize NOx emissions based on the recommendations of equipment vendors and other information including the source's operating and maintenance experience;
 - (c) Implement the operating and maintenance plan and maintain the plan at the premises for review upon request by the Department;
 - (d) Require installation operators to attend in-State operator training programs once every 3 years on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and
 - (e) Prepare and maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request.
- (2) A person who owns or operates an installation that no longer qualifies as a space heater shall inform the Department not later than 60 days after the date when the fuel-burning equipment did not qualify, and shall meet the applicable fuel-burning equipment RACT requirement in this regulation.

COMAR 26.11.09.01B(15) states, "Space heater" means fuel-burning equipment that consumes more than 60 percent of its annual fuel during the period from October 31 or one year through March 31 of the following year. For the purpose of this regulation, annual fuel use is the total fuel consumed during the period October 1 of one year to September 30 of the following year, beginning October 1, 1989.

Compliance Methods for the Above (Description and Citation):

Operator training program has been established and records of attendance are on file. Full combustion optimization has been performed on each boiler and records are on file. An operation and maintenance plan has been developed for the space heaters and is on file.

Status (Check one): Intermittent Compliance Continuous Compliance

A-COMP

Emission Unit ID(s): EU-19, EU-20, EU-23, EU-24, EU-25, and EU-26

Permit Term (Describe requirements and cross-reference)

Section IV-3.1C – Operating Limitation

The Permittee shall burn only natural gas in the six (6) boilers unless the Permittee applies for and receives an approval or permit from the Department to burn alternate fuels. **[Reference: COMAR 26.11.02.09A & MDE Permit Nos. 003-0208-5-0769 through 5-0774 issued on 05/13/13]**

Compliance Methods for the Above (Description and Citation):

Fuel use logs are on file.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-19, EU-20, EU-23, EU-24, EU-25, and EU-26

Permit Term (Describe requirements and cross-reference)

Section IV-3.2B. – Testing Requirements – Control of Nitrogen Oxides

The Permittee shall perform a combustion analysis once a year. **[Reference: COMAR 26.11.09.08E(2)]**

Compliance Methods for the Above (Description and Citation):

Annual combustion analyses were completed and records are on file.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-19, EU-20, EU-23, EU-24, EU-25, EU-26, EU-27, EU-28, and EU-30

Permit Term (Describe requirements and cross-reference)

Section IV-3.3A. - Monitoring Requirements - Control of Visible Emissions

The Permittee shall properly operate and maintain the boilers in a manner to prevent visible emissions. **[Reference: COMAR 26.11.03.06C]**

Compliance Methods for the Above (Description and Citation):

The above emission units operated only on natural gas during 2021. No visible emissions were noted; therefore, no Method 9 observations were required.

Status (Check one): Intermittent Compliance Continuous Compliance

A-COMP

Emission Unit ID(s): EU-19, EU-20, EU-23, EU-24, EU-25, and EU-26

Permit Term (Describe requirements and cross-reference)

Section IV-3.3B. - Monitoring Requirements - Control of Nitrogen Oxides

The Permittee shall optimize combustion based on the annual combustion analysis.

[Reference: COMAR 26.11.09.08E(2)]

Compliance Methods for the Above (Description and Citation):

Combustion analyses were completed and operations were optimized.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-27, EU-28, and EU-30

Permit Term (Describe requirements and cross-reference)

Section IV-3.3B. – Monitoring Requirements – Control of Nitrogen Oxides

The Permittee shall develop and maintain an operating and maintenance plan to minimize NOx.

[Reference: COMAR 26.11.09.08F(1)(b)]

Compliance Methods for the Above (Description and Citation):

An operating and maintenance plan has been developed and is maintained on site.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-19, EU-20, EU-23, EU-24, EU-25, EU-26, EU-27, EU-28, and EU-30

Permit Term (Describe requirements and cross-reference)

Section IV-3.4. – Record Keeping Requirements

All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)]**

Compliance Methods for the Above (Description and Citation):

Required records are on file and maintained for at least 5 years.

Status (Check one): Intermittent Compliance Continuous Compliance

A-COMP

Emission Unit ID(s): EU-19, EU-20, EU-23, EU-24, EU-25, EU-26, EU-27, EU-28, and EU-30

Permit Term (Describe requirements and cross-reference)

Section IV-3.4A. – Record Keeping Requirements – Control of Visible Emissions

The Permittee shall maintain an operations manual and preventive maintenance plan. The Permittee shall maintain a log of maintenance performed that relates to combustion performance.

[Reference: COMAR 26.11.03.06C]

Compliance Methods for the Above (Description and Citation):

Operation manual and maintenance plan has been developed and reviewed periodically. Records of all required maintenance are on file.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-19, EU-20, EU-23, EU-24, EU-25, and EU-26

Permit Term (Describe requirements and cross-reference)

Section IV-3.4B. - Record Keeping Requirements - Control of Nitrogen Oxides

The Permittee shall maintain:

- (1). The Permittee shall maintain records of the results of the annual combustion analysis on site.

[Reference: COMAR 26.11.09.08E(3)]

- (2). Record of training program attendance for each operator at the site.

[Reference: COMAR 26.11.09.08E(5)]

Compliance Methods for the Above (Description and Citation):

Records of required combustion analyses and training are on file.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-27, EU-28, and EU-30

Permit Term (Describe requirements and cross-reference)

Section IV-3.4B. - Record Keeping Requirements - Control of Nitrogen Oxides

The Permittee shall maintain:

- (1). The Permittee shall maintain records maintenance performed that relates to combustion performance in keeping with the requirements of an operations and maintenance plan.
[Reference: COMAR 26.11.09.08F(1)(c)]
- (2). Record of training program attendance for each operator at the site.
[Reference: COMAR 26.11.09.08F(1)(e)]
- (3). An operations manual and preventative maintenance plan.
[Reference: COMAR 26.11.09.08F(1)(b)]
- (4). Records of fuel use that demonstrate that the boiler meets the definition of a space heater.
[Reference: COMAR 26.11.09.08K(3) and COMAR 26.11.03.06C]

Compliance Methods for the Above (Description and Citation):

Records of required combustion analyses and training are on file.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-19, EU-20, EU-23, EU-24, EU-25, and EU-26

Permit Term (Describe requirements and cross-reference)

Section IV-3.4C. – Record Keeping Requirements – Operational Limitation

The Permittee shall maintain monthly records of the total natural gas usage in million cubic feet for the six (6) boilers. [Reference: MOE Permit Nos. 003-0208-5-0769 thru 5-0774 issued on 05/13/2013 and COMAR 26.11.03.06]

Compliance Methods for the Above (Description and Citation):

Fuel use logs are on file.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-19, EU-20, EU-23, EU-24, EU-25, EU-26, EU-27, EU-28, and EU-30

Permit Term (Describe requirements and cross-reference)

Section IV-3.5A. – Reporting Requirements – Control of Visible Emissions

The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations".

Compliance Methods for the Above (Description and Citation):

No visible emissions were observed during the reporting period. The emission units above operated only on natural gas in 2021.

Status (Check one): Intermittent Compliance Continuous Compliance

A-COMP

Emission Unit ID(s): EU-19, EU-20, EU-23, EU-24, EU-25, EU-26, EU-27, EU-28, and EU-30

Permit Term (Describe requirements and cross-reference)

Section IV-3.5B. - Reporting Requirements - Control of Nitrogen Oxides

The Permittee shall submit: [EU-19, EU-20, EU-23, EU-24, EU-25, and EU-26 only]

- (1). The results of combustion analysis to the department and the EPA upon request.
[Reference: COMAR 26.11.09.08E(3)]
- (2). A record of training program attendance for each operator to the Department upon request.
[Reference: COMAR 26.11.09.08E(5)]

[EU-27, EU-28, and EU-30 only]

The permittee shall submit a record of training program attendance for each operator to the Department upon request.

[Reference: COMAR 26.11.09.08F(1)(e)]

Compliance Methods for the Above (Description and Citation):

Combustion analyses and operator training records are on file.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-19, EU-20, EU-23, EU-24, EU-25, EU-26, EU-27, EU-28, and EU-30

Permit Term (Describe requirements and cross-reference)

Section IV-3.5C. - Reporting Requirements – Operational Limitation

The Permittee shall submit records of the quantity and type of fuels burned with the annual emissions certification report. See permit condition 8 of Section III.

Compliance Methods for the Above (Description and Citation):

Fuel use report is being submitted with the annual emission certification report.

Status (Check one): Intermittent Compliance Continuous Compliance

A-COMP

Emission Unit ID(s): EU-4 through EU-6; EU-10 through EU-18, EU-29, and EU-32 – Emergency Generators

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-4.1A. - Control of Visible Emissions

COMAR 26.11.09.05E - Stationary Internal Combustion Engine Powered Equipment

- (2). Emissions During Idle Mode. A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.
- (3). Emissions During Operating Mode. A person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.
- (4). Exceptions.
 - (a) Section E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.
 - (b) Section E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:
 - (i) Engines that are idled continuously when not in service: 30 minutes;
 - (ii) All other engines: 15 minutes.
 - (c) Section E(2) and (3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics.

Compliance Methods for the Above (Description and Citation):

No visible emissions occurred during the reporting period.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-4 through EU-6; EU-10 through EU-18, EU-29, and EU-32 – Emergency Generators

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-4.1B. - Control of Sulfur Oxides

COMAR 26.11.09.07 A(2) - Sulfur Content Limitations for Fuel

“A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceed the following limitations: In Areas III and IV: (b) Distillate fuel oil, 0.3 percent.”

Compliance Methods for the Above (Description and Citation):

Fuel supplier's certifications are on file indicating that the sulfur content below specified maximum.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-4 through EU-6; EU-10 through EU-18, EU-29, and EU-32 – Emergency Generators

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-4.1C. - Control of Nitrogen Oxides

COMAR 26.11.09.08B(5) - Operator Training

- (1). “For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.
- (2). The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department.”

COMAR 26.11.09.08G(1) - Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or less, and Combustion Turbines with a Capacity Factor Greater than 15 Percent]

“A person who owns or operates fuel-burning equipment with a capacity factor (as defined in 40 CFR Part 72.2) of 15 percent or less shall:

- (a) Provide certification of the capacity factor of the equipment to the Department in writing;
- (b) For fuel-burning equipment that operates more than 500 hours during a calendar year, perform a combustion analysis and optimize combustion at least once annually;
- (c) Maintain the results of the combustion analysis at the site for at least 2 years and make these results available to the Department and the EPA upon request;
- (d) Require each operator of an installation, except combustion turbines, to attend operator training programs at least once every 3 years, on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and
- (e) Maintain a record of training program attendance for each operator at the site, and make these records available to the Department upon request.”

Compliance Methods for the Above (Description and Citation):

Capacity factor has been determined and submitted to the Department.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-4 through EU-6; EU-10 through EU-18, EU-29, and EU-32 – Emergency Generators

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-4.2C. – Testing Requirements – Control of Nitrogen Oxides

The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year.

[Reference: COMAR 26.11.09.08G(1)(b)].

Compliance Methods for the Above (Description and Citation):

No emergency generator operated for more than 500 hours in 2021.

Status (Check one): Intermittent Compliance Continuous Compliance

A-COMP

Emission Unit ID(s): EU-4 through EU-6; EU-10 through EU-18, EU-29, and EU-32 – Emergency Generators

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-4.3A. – Monitoring Requirements – Control of Visible Emissions

The Permittee shall perform preventative maintenance to optimize combustion performance.

[Reference: COMAR 26.11.03.06C].

Compliance Methods for the Above (Description and Citation):

Preventative maintenance records are on file.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-4 through EU-6; EU-10 through EU-18, EU-29, and EU-32 – Emergency Generators

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-4.3B. – Monitoring Requirements – Control of Sulfur Oxides

The Permittee shall obtain certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation. [Reference: COMAR 26.11.03.06C].

Compliance Methods for the Above (Description and Citation):

Fuel supplier's certifications are on file.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-4 through EU-6; EU-10 through EU-18, EU-29, and EU-32 – Emergency Generators

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-4.3C. – Monitoring Requirements – Control of Nitrogen Oxides

For engines that operate more than 500 hours during a calendar year, perform a combustion analysis and optimize combustion. [Reference: COMAR 26.11.09.08G(1)(c)]

Compliance Methods for the Above (Description and Citation):

No emergency generator operated for more than 500 hours in 2021.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

A-COMP

Emission Unit ID(s): EU-4 through EU-6; EU-10 through EU-18, EU-29, and EU-32 – Emergency Generators

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-4.4. – Record Keeping Requirements

All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)]**

Compliance Methods for the Above (Description and Citation):

All required records are on file and maintained for at least 5 years.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-4 through EU-6; EU-10 through EU-18, EU-29, and EU-32 – Emergency Generators

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-4.4A. – Record Keeping Requirements – Control of Visible Emissions

The Permittee shall retain records of preventative maintenance on site and make available to the Department upon request. **[Reference: COMAR 26.11.03.06C]**

Compliance Methods for the Above (Description and Citation):

Preventative maintenance records are maintained on file.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-4 through EU-6; EU-10 through EU-18, EU-29, and EU-32 – Emergency Generators

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-4.4B. – Record Keeping Requirements – Control of Sulfur Oxides

The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation. **[Reference: COMAR 26.11.09.07C].**

Compliance Methods for the Above (Description and Citation):

Fuel supplier's certification records are maintained on file.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

A-COMP

Emission Unit ID(s): EU-4 through EU-6; EU-10 through EU-18, EU-29, and EU-32 – Emergency Generators

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-4.4C. – Record Keeping Requirements – Control of Nitrogen Oxides

The Permittee shall maintain:

- (1). Records of the results of the combustion analysis at the site and make these results available to the Department and the EPA upon request. **[Reference: COMAR 26.11.09.08G(1)(c) and COMAR 26.11.03.06C].**
- (2). Records of training program attendance for each operator at the site and make these records available to the Department upon request. **[Reference: COMAR 26.11.09.08G(1)(e) and COMAR 26.11.03.06C].**
- (3). Records of hours of operation and fuel usage on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period. **[Reference: COMAR 26.11.03.06C].**

Compliance Methods for the Above (Description and Citation):

Operation hours and NOx calculation records are maintained on file.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-4 through EU-6; EU-10 through EU-18, EU-29, and EU-32 – Emergency Generators

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-4.5A. – Reporting Requirements – Control of Visible Emissions

The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations".

Compliance Methods for the Above (Description and Citation):

No reportable visible emissions were observed during the reporting period.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-4 through EU-6; EU-10 through EU-18, EU-29, and EU-32 – Emergency Generators

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-4.5B. – Reporting Requirements – Control of Sulfur Oxides

The Permittee shall report fuel supplier certification for sulfur content to the Department upon request. **[Reference: COMAR 26.11.09.07C and COMAR 26.11.03.06C].**

Compliance Methods for the Above (Description and Citation):

Fuel supplier's certifications are maintained on file.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-4 through EU-6; EU-10 through EU-18, EU-29, and EU-32 – Emergency Generators

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-4.5C. – Reporting Requirements – Control of Nitrogen Oxides

The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing with the annual emission certification [**Reference: COMAR 26.11.09.08G(1)(a)**].

Compliance Methods for the Above (Description and Citation):

Capacity factor determined and reported to the Department within the annual emission certification report.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-15 through EU-18, EU-29, and EU-32 – Emergency Generators cont'd

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-4a.1A. – NSPS – 40 CFR 60 Subpart IIII

New Source Performance Standards (NSPS) under 40 CFR Part 60 Subpart IIII for Stationary Compression Ignition Internal Combustion Engines.

Note: Installations subject to 40 CFR Part 60, Subpart IIII, beginning October 1, 2010, must comply with the fuel standards of §60.4207 which limit the maximum sulfur content of the fuel to 15 ppm.

- (1) This permit is valid only for the installation of an emergency diesel generator with piston displacement less than 10 liters per cylinder.
- (2) The provisions of 40 CFR Part 60, Subpart IIII apply if the emergency diesel generator uses a diesel engine manufactured after April 1, 2006. [**Reference: 40 CFR §60.4200(a)**]
- (3) An emergency diesel generator or diesel engine subject to the requirements of 40 CFR 60, Subpart IIII ("NSPS emergency diesel generator" or "NSPS emergency diesel engine") shall be equipped with a non-resettable hour meter. [**Reference: 40 CFR §60.4209(a)**]
- (4) For 2007 model year and later model year NSPS emergency diesel engines, the Permittee must purchase and install an engine certified to the emission standards of §60.4205(b) for the same model year and maximum engine horsepower, to wit: [**Reference: 40 CFR §60.4211(c)**]
 - a. For engines with a maximum engine power less than or equal to 2,237 KW (3,000 HP), the certification emission standards for new nonroad diesel engines in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants; [**Reference: 40 CFR §62.4202(a)(2)**]
- (5) After December 31, 2008, owners and operators may not install an emergency diesel generator that does not meet the applicable requirements for 2007 model year engines. [**Reference: 40 CFR §60.4208**]
- (6) The requirements of condition (5) above do not apply to owners or operators of NSPS emergency diesel engines that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location. [**Reference: 40 CFR §60.4208**]

Compliance Methods for the Above (Description and Citation):

The engines combust fuel with a sulfur content below 15 ppm and are equipped with non-resettable hour meters. Certified engines were purchased and installed.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-15 through EU-18, EU-29, and EU-32 – Emergency Generators cont'd

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-4a.1B. – NESHAP – 40 CFR 63 Subparts A and ZZZZ

40 CFR §63.6590(c) - What parts of my plant does this subpart cover?

"This subpart applies to each affected source.

Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

(1) A new or reconstructed stationary RICE located at an area source"

Note: New stationary RICE located at an area source comply with 40 CFR Part 63, Subpart ZZZZ by complying with 40 CFR Part 60, Subpart IIII per 40 CFR §63.6590(c)(I)

Compliance Methods for the Above (Description and Citation):

Compliance with 40 CFR Part 63, Subpart ZZZZ is demonstrated by complying with 40 CFR Part 60, Subpart IIII. These engines comply with 40 CFR Part 60, Subpart IIII as detailed on previous page.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-15 through EU-18, EU-29, and EU-32 – Emergency Generators cont'd

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-4a.1C. – Operational Limits

- (1) The Permittee must operate and maintain an NSPS emergency diesel generator and control devices according to the manufacturer's written instructions or according to procedures developed by the owner or operator that are approved by the manufacturer. Additionally the Permittee may change only those settings that are permitted by the manufacturer. The Permittee must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they may apply to an owner or operator.
[Reference: 40 CFR §60.4211]
- (2) Beginning October 1, 2010, an NSPS emergency diesel generator must combust diesel fuel meeting the requirements of 40 CFR §80.51(b), unless a waiver is obtained from the Department: and/or the EPA Administrator. **[Reference: 40 CFR §60.4207]**
- (3) In accordance with 40 CFR §60.4211(f), use of each NSPS emergency diesel generator for the purpose of maintenance checks and readiness testing, emergency demand response, or periods of deviation of voltage or frequency as discussed in 40 CFR §60.4211(f)(2)(i) is limited to 100 hours per year or less unless prior approval is received from the Department.

Compliance Methods for the Above (Description and Citation):

The engines are operated per manufacturer's procedures, fuel supplier's certifications are on file indicating that the sulfur content is below specified maximum, and maintenance checks and readiness testing hours were under 100 hours for each generator in 2021. The engines did not operate for any of the reasons no longer allowed under 40 CFR §60.4211(f) based on the May 1, 2015 decision by the US Court of Appeals for the DC Circuit in Delaware v. EPA which vacated portions of this regulation.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-15 through EU-18, EU-29, and EU-32 – Emergency Generators cont'd

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-4a.4A. – Record Keeping Requirements - NSPS

- (1) The Permittee shall maintain a log for the emergency generator indicating the amounts of fuel oil combusted, the hours of operation, and reason for generator operation (i.e., maintenance or operational testing, power outage, etc.).
- (2) The Permittee shall maintain on site for the life of the source the following records for the emergency diesel generator(s):
 - a. Documentation of the manufacture date of the diesel engine, if manufactured prior to April 1, 2006 and the manufacturer model year of the diesel engine;
 - b. The installation date of each emergency diesel generator; and
 - c. The certifications of compliance or manufacturer engine test data required by 40 CFR §60.4211 and §60.4214(b).
- (3) Beginning October 1, 2010, for any NSPS emergency diesel generator the Permittee shall for each fuel delivery obtain from the fuel supplier a fuel supplier certification consisting of the name of the oil supplier, the date of delivery, the amount of fuel delivered, and a statement from the fuel supplier that the diesel fuel oil complies with the specifications of 40 CFR 580.51 0. The Permittee shall maintain the required records on site for at least five (5) years.

Compliance Methods for the Above (Description and Citation):

Operational logs are maintained on site, engine documentation that was included with the application is maintained on site, and fuel supplier's certifications are on file indicating that the sulfur content below specified maximum.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-15 through EU-18, EU-29, and EU-32 – Emergency Generators cont'd

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-4a.5C. – Reporting Requirements – Operational Limit

The Permittee shall report the amounts of fuel oil combusted, the hours of operation, and reason for generator operation (i.e., maintenance or operational testing, power outage, etc.) to the Department in the annual emission certification report due on April 1 of each year.

[Reference: COMAR 26.11.03.06C]

Compliance Methods for the Above (Description and Citation):

This information will be reported in the annual emission certification report.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-4 through EU-6 & EU-10 through EU-14 – Emergency Generators cont'd.

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-4b.1 - Applicable Standards/Limits - MACT:

40 CFR §63.6603 - What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table I b and Table 2b to this subpart that apply to you."

Table 2d to Subpart ZZZZ of Part 63-Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

"As stated in §§63.6603 and 63.6640, you must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:

For each emergency stationary CI RICE and black start stationary CI RICE you must meet the following requirements, except during periods of startup:

- (a). Change oil and filter every 500 hours of operation or annually, whichever comes first;
- (b). Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and
- (c). Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first.

Compliance Methods for the Above (Description and Citation):

Oil and filter change were completed and air filters, hoses, and belts were inspected.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-4 through EU-6 & EU-10 through EU-14 – Emergency Generators cont'd.

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-4b.1 - Applicable Standards/Limits - MACT:

40 CFR §63.6605 - What are my general requirements for complying with this subpart?

- a. "You must be in compliance with the emission limitations and operating limitations in this subpart that apply to you at all times."
- b. "At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source."

Compliance Methods for the Above (Description and Citation):

The engines are maintained in accordance with manufacturer's recommendations.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-4 through EU-6 & EU-10 through EU-14 – Emergency Generators cont'd.

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-4b.3 - Monitoring Requirements - MACT:

40 CFR §63.6625(e) - What are my monitoring, installation, collection, operation, and maintenance requirements?

"If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

(3) An existing emergency or black start stationary RICE located at an area source of HAP emissions."

40 CFR §63.6625(f) - What are my monitoring, installation, collection, operation, and maintenance requirements?

"If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed."

40 CFR §63.6625(h) - What are my monitoring, installation, collection, operation, and maintenance requirements?

"If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to at1 times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

40 CFR §63.6625(i) - What are my monitoring, installation, collection, operation, and maintenance requirements?

"If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine."

Compliance Methods for the Above (Description and Citation):

The engines are maintained in accordance with manufacturer's recommendations. A non-resettable meter is installed on each engine; engine idle time is minimized well below the 30-minute limit.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-4 through EU-6 & EU-10 through EU-14 – Emergency Generators cont'd.

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-4b.3 – Monitoring Requirements - MACT:

40 CFR §63.6640(a) - How do I demonstrate continuous compliance with the emission limitations and operations limitations?

"You must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1 a and 1 b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart."

40 CFR §63.6640(b) - How do I demonstrate continuous compliance with the emission limitations and operations limitations?

"You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1 a and 1 b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE."

40 CFR §63.6640(f) - How do I demonstrate continuous compliance with the emission limitations and operations limitations?

"Requirements for emergency stationary RICE. (1) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that was installed on or after June 12, 2006, or an existing emergency stationary RICE located at an area source of HAP emissions, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1)(i) and (ii)* of this section. Any operation other than emergency operation, maintenance and testing is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1)(i) through (ii)* of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines:

- i. There is no time limit on the use of emergency stationary RICE in emergency situations.
- ii. You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year."

Note*: Effective May 2, 2016, emergency generators are no longer allowed to participate for emergency demand response operation unless they meet the requirements of a non-emergency generator of the same model year. Engines that participate in an EDR are considered "non-emergency" engines under the new federal New Source Performance Standards, 40 CFR 60, Subpart IIII for compression ignition and Subpart JJJJ for spark ignition engines, and for existing engines under the National Emission Standards for Hazardous Air Pollutants 40 FR 63, Subpart ZZZZ (the RICE rule).

[Ref: U.S. Court of Appeals for the District of Columbia Circuit May 2, 2016 Vacatur on Participation in Emergency Demand Response (EDR) Programs]

Compliance Methods for the Above (Description and Citation):

The engines are certified to meet the emission limitations and operating hours are logged to ensure the usage for maintenance and readiness testing is below 100 hours. The engines did not operate for any of the reasons no longer allowed under 40 CFR §63.6640(f) based on the May 1, 2015 decision by the US Court of Appeals for the DC Circuit in Delaware v. EPA which vacated portions of this regulation.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

A-COMP

Emission Unit ID(s): EU-4 through EU-6 & EU-10 through EU-14 – Emergency Generators cont'd.

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-4b.4. – Record Keeping Requirements - MACT:

All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)]**

Compliance Methods for the Above (Description and Citation):

All records are maintained for at least 5 years.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-4 through EU-6 & EU-10 through EU-14 – Emergency Generators cont'd.

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-4b.4. – Record Keeping Requirements - MACT:

40 CFR §63.6655(e) – What records must I keep?

"You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;

- (2). An existing stationary emergency RICE.
- (3). An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart."

40 CFR §63.6655(f) – What records must I keep?

If you own or operate any of the stationary RICE in paragraphs (f)(1) or (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response. (2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

Compliance Methods for the Above (Description and Citation):

All maintenance records and hours of operation log are maintained for at least 5 years.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-4 through EU-6 & EU-10 through EU-14 – Emergency Generators cont'd.

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-4b.5. – Reporting Requirements - MACT:

"Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable." **[Footnote 2 of 40 CFR Part 63, Subpart ZZZZ, Table 2d]**

Compliance Methods for the Above (Description and Citation):

There were no failures to perform the management practice.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-7

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-5.1 - Applicable Standards/Limits:

Control of VOC Emissions – Small Storage Tanks. [COMAR 26.11.13.04C]

- (1). Applicability. This section applies to a person who owns or operates:
- (a) A gasoline storage tank that has a tank capacity greater than 2,000 gallons but less than 40,000 gallons; or
 - (b) A gasoline tank truck used to transfer gasoline into a storage tank that is listed in Sec. C(1)(a) of this regulation.
- (2). Stage I Vapor Recovery. An owner or operator of a gasoline tank truck or an owner or operator of a stationary storage tank subject to this regulation may not cause or permit gasoline to be loaded into a stationary tank unless the loading system is equipped with a vapor balance line that is properly installed, maintained, and used.

Compliance Methods for the Above (Description and Citation):

This requirement is no longer applicable. Per MDE's COMAR 26.11.24 regulation that allows decommissioning of Stage II Vapor Recovery Systems, the Stage II Vapor Recovery System associated with EU-7 was decommissioned in February 2017 and notification provided to MDE. Stage II was removed in the current permit.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-7

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-5.1 - Applicable Standards/Limits:

COMAR 26.11.13.04D – General Standards.

“A person may not cause or permit gasoline or VOC having a TVP of 1.5 psia (10.3 kilonewtons/square meter) or greater to be loaded into any tank truck, railroad tank car, or other contrivance unless the:

- (1) Loading connections on the vapor lines are equipped with fittings that have no leaks and that automatically and immediately close upon disconnection to prevent release of gasoline or VOC from these fittings; and
- (2) Equipment is maintained and operated in a manner to prevent avoidable liquid leaks during loading or unloading operations.”

Compliance Methods for the Above (Description and Citation):

The gasoline has been handled in a manner to demonstrate compliance.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-7

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-5.3 - Monitoring Requirements

Control of VOC Emissions

Once a month during a delivery, the Permittee shall visually inspect all components on the premises for leaks and retain a record of these leak inspections. If leaks are detected, corrective action shall be as follows:

- (1) Take immediate action to repair all observed VOC leaks that can be repaired within 48 hours; and
- (2) Repair all other leaking components not later than 15 days after the leak is discovered. If a replacement part is needed, the part shall be ordered within 3 days after the discovery of the leak, and the leak shall be repaired within 48 hours after receiving the part. **[Reference: COMAR 26.11.03.06C]**

Compliance Methods for the Above (Description and Citation):

Inspections have been completed and recorded. Records are on file.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-7

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-5.4 - Record Keeping Requirements:

Note: All records must be maintained for a period of 5 years. **[COMAR 26.11.03.06C(5)(g)]**

Control of VOC Emissions

The permittee shall maintain the results of the monthly inspections and records of dates on which corrective actions and repairs were completed. **[Reference: COMAR 26.11.03.06C]**

Compliance Methods for the Above (Description and Citation):

All required records are on file.

Status (Check one): Intermittent Compliance Continuous Compliance

A-COMP

Emission Unit ID(s): EU-7

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-5.5 - Reporting Requirements

Control of VOC Emissions

The Permittee shall make records available to the Department upon request.

[Reference: COMAR 26.11.03.06C]

Compliance Methods for the Above (Description and Citation):

All required records are maintained on file and available upon request.

Status (Check one): Intermittent Compliance Continuous Compliance

Emission Unit ID(s): EU-7

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-5a.1. – Applicable Standards/Limits - Control of HAPs

40 CFR Part 63 CCCCCC – National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities

40 CFR §63.11110 – What is the purpose of this subpart?

"This subpart establishes national emission limitations and management practices for hazardous air pollutants (HAP) emitted from the loading of gasoline storage tanks at gasoline dispensing facilities (GDF). This subpart also establishes requirements to demonstrate compliance with the emission limitations and management practices."

40 CFR §63.11111(a) – Am I subject to the requirements of this subpart?

"The affected source to which this subpart applies is each GDF that is located at an area source. The affected source includes each gasoline cargo tank during the delivery of product to a GDF and also includes each storage tank."

40 CFR §63.11111(b) – Am I subject to the requirements of this subpart?

"If your GDF has a monthly throughput of less than 10,000 gallons of gasoline, you must comply with the requirements in §63.11116."

40 CFR §63.11111(c) – Am I subject to the requirements of this subpart?

"If your GDF has a monthly throughput of 10,000 gallons of gasoline or more, you must comply with the requirements in §63.11117."

40 CFR §63.11116 – Requirements for facilities with monthly throughput of less than 10,000 gallons of gasoline.

- (a) "You must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:
- (1). Minimize gasoline spills;
 - (2). Clean up spills as expeditiously as practicable;
 - (3). Cover all open gasoline containers and all gasoline storage tank fill pipes with a gasketed seal when not in use;
 - (4). Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators."
- (b) "You are not required to submit notifications or reports as specified in §63.11125, §63.11126 or subpart A of this part, but you must have records available within 24 hours of a request by the Administrator to document your gasoline throughput."
- (c) "You must comply with the requirements of this subpart by the applicable dates specified in §63.11113."
- (d) "Portable gasoline containers that meet the requirements of 40 CFR part 59, subpart F, are considered acceptable for compliance with paragraph (a)(3) of this section."

Compliance Methods for the Above (Description and Citation):

The gasoline has been handled in a manner to demonstrate compliance.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-7

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-5a.1. – Applicable Standards/Limits - Control of HAPs

40 CFR Part 63 CCCCCC – National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities

40 CFR §63.11117 – Requirements for facilities with monthly throughput of 10,000 gallons of gasoline or more.

- (a) “You must comply with the requirements in section §63.11116(a).”
- (b) “Except as specified in paragraph (c) of this section, you must only load gasoline into storage tanks at your facility by utilizing submerged filling, as defined in §63.11132, and as specified in paragraphs (b)(1), (b)(2), or (b)(3) of this section. The applicable distances in paragraphs (b)(1) and (2) shall be measured from the point in the opening of the submerged fill pipe that is the greatest distance from the bottom of the storage tank.
- (1). Submerged fill pipes installed on or before November 9, 2006, must be no more than 12 inches from the bottom of the tank.
 - (2). Submerged fill pipes installed after November 9, 2006, must be no more than 6 inches from the bottom of the tank.
 - (3). Submerged fill pipes not meeting the specifications of paragraphs (b)(1) or (b)(2) of this section are allowed if the owner or operator can demonstrate that the liquid level in the tank is always above the entire opening of the fill pipe. Documentation providing such demonstration must be made available for inspection by the Administrator’s delegated representative during the course of a site visit.”
- (c) Gasoline storage tanks with a capacity of less than 250 gallons are not required to comply with the submerged fill requirements in paragraph (b) of this section, but must comply only with all of the requirements in §63.11116.
- (d) “You must have records available within 24 hours of a request by the Administrator to document your gasoline throughput.”
- (e) “You must submit the applicable notifications as required under §63.11124(a).”
- (f) “You must comply with the requirements of this subpart by the applicable dates contained in §63.11113.”

Compliance Methods for the Above (Description and Citation):

The gasoline tank and fill pipe comply with this requirement.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-7

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-5a.3. – Monitoring Requirements – Control of HAPs

40 CFR Part 63 CCCCCC – National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities

The Permittee must monitor and record monthly gasoline throughput.

Compliance Methods for the Above (Description and Citation):

The gasoline throughput has been recorded monthly.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-7

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-5a.4. – Record Keeping Requirements – Control of HAPs

40 CFR Part 63 CCCCCC – National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities

“You must have records available within 24 hours of a request by the Administrator to document your gasoline throughput.” [40 CFR §63.11117(d)]

Compliance Methods for the Above (Description and Citation):

The gasoline throughput has been recorded monthly and records are available for review.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): EU-7

Permit Term (Describe requirements and cross-reference)

Section IV. Table IV-5a.5. – Reporting Requirements – Control of HAPs

40 CFR Part 63 CCCCCC – National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities

“You must submit the applicable notifications as required under §63.11124(a).” [40 CFR §63.11117(e)]

“If, prior to January 10, 2008, you are operating in compliance with an enforceable State, local, or tribal rule or permit that requires submerged fill as specified in §63.11117(b), you are not required to submit an Initial Notification or a Notification of Compliance Status under paragraph (a)(1) or paragraph (a)(2) of this section.” [40 CFR §63.11124(a)(3)]

Compliance Methods for the Above (Description and Citation):

The facility is in compliance. Per 40 CFR 63.11124(a)(3), no notifications were required for this source which was installed in 2005 and operated in accordance with a permit requiring a submerged fill pipe.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

Emission Unit ID(s): Boilers – General Permits 003-0208-5-0880 & 003-0208-5-0881

Permit Term (Describe requirements and cross-reference)

Construction permit issued May 16, 2019

Compliance Methods for the Above (Description and Citation):

The facility is in compliance with all terms of General Permit 003-0208-5-0880 & 003-0208-5-0881. The boilers were installed in November 2020 and began operation in May 2021.

Status (Check one): ___ Intermittent Compliance X Continuous Compliance

A-COMP**C. DEVIATIONS FROM PERMIT TERMS AND CONDITIONS**

Report all deviations from permit terms (whether reported previously or not) that occurred during the permit term. Cross-reference deviations already reported in the six-month report. Indicate whether each deviation is a "possible exception to compliance." Start and end period of each deviation should be in mo/day/yr, hr:min format (24-hour clock). Also specify the date when the written deviation report was submitted (If written report required, but not submitted, leave the date field blank).

Permit Term for Which There was a Deviation: NO DEVIATIONS Emission Units (unit IDs): Deviation Start _____ :_____ End:_____/_____/_____ :_____ Date Written Report Submitted ____/____/____
Permit Term for Which There was a Deviation: Emission Units (unit IDs): Deviation Start ____/____/_____ :_____ End:_____/_____/_____ :_____ Date Written Report Submitted __/__/____
Permit Term for Which There was a Deviation: Emission Units (unit IDs): Deviation Start ____/____/_____ :_____ End:_____/_____/_____ :_____ Date Written Report Submitted ____/____/_____

INSTRUCTIONS FOR A-COMP ANNUAL COMPLIANCE CERTIFICATION

Information Collection Burden Estimates

The public reporting and recordkeeping burden for this collection of information is estimated to average 221 hours per respondent per year. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

DETAILED INSTRUCTIONS

Submit this form along with a certification of truth, accuracy and completeness by a responsible official on an annual basis.

Section A (General Information)

Name and address should be consistent with information provided previously. The contact person should be a person familiar with the day-to-day operation of the facility, such as a plant site manager or other individual, who should be available to be contacted by the permitting authority. If there is more than one contact person, list the others on an attachment.

The reporting period must be at least every 12 months, but your permit may require this more frequently.

Section B (Compliance Status)

Description of Permit Term: Include each permit terms that imposes a requirement or action (emission limitations, standards, monitoring, recordkeeping, reporting, and other requirements on one or more emission units or on the facility. You will likely have to complete this section numerous times to include all requirements in the permit.

The emissions unit ID(s) should be those defined in the permit or in section I of form GIS. If the requirements, including compliance methods, apply in the same way to multiple emission units, you may list multiple units for a particular requirement. Emission units and requirements may be grouped if they apply the same way at all units in the group, the same compliance methods apply to all, and all units have the same compliance status.

Citations to the requirements should unambiguously identify the permit term to the lowest level.

Compliance Methods: List all compliance methods (monitoring, recordkeeping and reporting) you used to determine compliance with the permit term described above. Also describe and cross-reference these compliance methods.

To describe monitoring, indicate the monitoring device, what is being monitored, averaging time, frequency, and cross-reference the permit term. To describe recordkeeping, describe the records kept, collection frequency, and cross-reference the permit term. Please indicate whether monitoring data, results, or if compliance records are be kept on-site rather than reported. To describe reporting requirements, describe what is reported, when it is reported, and cross-reference the permit term.

The citation or cross-reference here must unambiguously identify the requirement to the lowest level.

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Compliance Status: For each permit requirement and its associated compliance methods, indicate whether there was intermittent or continuous compliance (check one) during the reporting period. You should consider all available information or knowledge that you have when evaluating this, including compliance methods required by the permit and **credible evidence** (e.g., non-reference test methods and information **readily available** to you). You are always free to include written explanations and other information to clarify your conclusion regarding compliance status.

You must include permit terms that were not effective or not applicable (e.g., future-effective requirements, compliance options, and alternative scenarios). You may certify to continuous compliance for these if there is no evidence of noncompliance.

Absent evidence to the contrary, you may certify continuous compliance based on the data provided by the compliance methods, provided you did not fail to perform them and there were no unexcused deviations. Any failure to meet any permit term for any period of time indicates intermittent compliance. You may also indicate “undetermined compliance,” if you include the reason.

Section C (Deviations From Permit Terms and Conditions)

Summarize all deviations from permit terms that occurred since the last compliance certification. They may have been reported previously in-writing or they may be reported concurrently with this certification. Also include any deviations but have not yet been reported in writing.

Copy this page as many times as necessary to include all deviations that occurred during the reporting period for this compliance certification.

Deviations occur when any permit term is not met, including emission limitations, standards, monitoring, recordkeeping, reporting and other requirements. For a more detailed explanation of the term **deviation**, see the instructions for Form **SIXMON**. A deviation is not necessarily a violation. Violations are determined by EPA (or its delegate Agency).

You may cross-reference deviations previously reported (e.g., in 6-month monitoring reports).

You must indicate whether each deviation is a **possible exception to compliance**. This is a deviation that occurs when compliance is required. A deviation that is not a “possible exception to compliance” is one that occurs when compliance is not required or it is excused by another permit term. If you indicate that a deviation is not a possible exception to compliance, briefly explain and cross-reference the permit term that allows or excuses it. Also, deviations for which the permit provides an affirmative defense (e.g., emergencies) must be identified as “possible exception to compliance” because only the permitting authority may determine if the affirmative defense applies.

If the cross-reference a deviation report that does not contain all the information requested here, you must supplement it accordingly.

You may list multiple emission units if they all had the same deviation during the same time periods. In addition, for deviations that impose requirements to the permitted facility as a whole or to all units at your facility, you may enter **facility-wide** in the emissions unit column.

You may indicate continuous periods of deviation that span multiple days in a single entry. Use the 24-hour clock (equivalent to military time) for reporting these times (e.g., the day starts and ends at midnight, 12 a.m., or 00:00 in military time).

Specify the date when the written deviation report was submitted to the permitting authority. Leave the

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date field blank if you did not submit a written deviation report during the reporting period covered by the six-month monitoring report (whether required to do so or not). It is a deviation to fail to submit a required deviation report.

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Form CTAC (Certification of Truth, Accuracy, and Completeness by Responsible Official)

You must complete form **CTAC** and attach it to this annual compliance certification.

Federal Operating Permit Program (40 CFR Part 71)
CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS (CTAC)

This form must be completed, signed by the "Responsible Official" designated for the facility or emission unit, and sent with each submission of documents (i.e., application forms, updates to applications, reports, or any information required by a part-71 permit).

A. Responsible Official

Name: (Last) Shank (First) Paul (MI) L

Title Chief Engineer, Division of Planning and Engineering

Street or P.O. Box P.O. Box 8766, BWI Airport

City Baltimore State MD ZIP 21240 - 0766

Telephone (410) 859 - 7061 Ext. _____ Facsimile (____) _____ - _____

B. Certification of Truth, Accuracy and Completeness (to be signed by the responsible official)

I certify under penalty of law, based on information and belief formed after reasonable inquiry, the statements and information contained in these documents are true, accurate and complete.

Name (signed) 

Name (typed) Paul L. Shank P.E., C.M. Date: 03/23/2022

Appendix E
Mark-Up of Current Permit – Select Pages

**MARYLAND DEPARTMENT OF TRANSPORTATION
 MARYLAND AVIATION ADMINISTRATION
 BWI THURGOOD MARSHALL AIRPORT
 761 ELM ROAD, LINTHICUM MD 21090
 PART 70 OPERATING PERMIT NO. 24-003-0208**

SECTION I SOURCE IDENTIFICATION

1. DESCRIPTION OF FACILITY

Baltimore Washington International (BWI) Thurgood Marshall Airport is a medium-sized commercial airport, ranked 22nd in the United States based on passenger volume. The Standard Industrial Classification (SIC) code for the facility is 4581 – Airports, Flying Fields and Airport Terminal Services. Occupying 3,596 acres in northern Anne Arundel County, Maryland, the facility is owned by the Maryland Department of Transportation (MDOT) and operated by the Maryland Aviation Administration (MAA). Air carriers using the facility include 36 commercial, commuter, charter, and cargo airlines engaged in an average of 688 flight operations daily. An average exceeding 68,000 passengers per day are served by a single terminal building with 4 domestic and 1 international concourse, comprising approximately 2 million square feet. Inter-modal transportation services at the site include multiple parking facilities with associated shuttle buses, an AMTRAK station, and Light-Rail stops. MAA, tenant, and contractor employees working at BWI exceed 10,000. Significant stationary sources of air pollution at BWI include fossil fuel-fired boilers at the Central Utility Plant, smaller boilers located in the Terminal Building, standby electric generators, fuel storage, and training fires.

2. FACILITY INVENTORY LIST

Update based on permit renewal application

Emissions Unit Number	MDE Registration Number	Emissions Unit Name and Description	Date of Installation
EU-1	003-0208-5-0681	Boiler #1: One (1) Indeck natural gas/No. 2 fuel oil fired boiler rated at 55 million Btu per hour heat input producing HTHW located at the Central Utility Plant.	2003; Modified 2009
EU-2	003-0208-5-0682	Boiler #2: One (1) Indeck natural gas/No. 2 fuel oil fired boiler rated at 55 million Btu per hour heat input producing HTHW located at the Central Utility Plant.	2003; Modified 2009
EU-3	003-0208-5-0683	Boiler #3: One (1) Indeck natural gas/No. 2 fuel oil fired boiler rated at 25 million Btu per hour heat input producing HTHW located at the Central Utility Plant.	1995; Modified 2009
EU-4	003-0208-9-0916	One (1) Spectrum 500DS4 505 kW standby diesel fired emergency generator	2003

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Emissions Unit Number	MDE Registration Number	Emissions Unit Name and Description	Date of Installation
EU-32	003-0208-9-1140	Cummins Power Model DQFD {or Equivalent} Standby Emergency Generator rated @1000 kW (1341-bhp) or less, {Trailer mounted unit for use throughout facility where/when needed	2017
EU-33	003-0208-5-0880	One (1) D-Pier Boiler 1 Model KN-30 natural gas-fired boiler rated at 3.00 million Btu per hour heat input used for production of HTHW located at the D-Pier Building.	2020
EU-34	003-0208-5-0881	One (1) D-Pier Boiler 2 Model KN-30 natural gas-fired boiler rated at 3.00 million Btu per hour heat input used for production of HTHW located at the D-Pier Building.	2020

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Table IV – 2a: MACT	
	<p>(i) "This facility complies with the requirements in §63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler."</p> <p>(ii) For units that do not qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act: "No secondary materials that are solid waste were combusted in any affected unit."</p> <p>(iii) "This facility complies with the requirement in §§63.11214(d) and 63.11223(g) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available."</p> <p>(3) If the source experiences any deviations from the applicable requirements during the reporting period, include a description of deviations, the time periods during which the deviations occurred, and the corrective actions taken.</p> <p>(4) <i>Not Applicable.</i>"</p>

A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.

Table IV – 3	
3.0	<p><u>Emissions Unit Number(s): Boilers < 10 million Btu per hour natural gas fired</u></p> <p>EU-19 and EU-20: Two (2) Hydrotherm KN-20 natural gas-fired boilers each rated at 1.99 million Btu per hour heat input. [003-0208-5-0769 and 5-0770]</p> <p>EU-23, EU-24, EU-25 and EU-26: Four (4) Hydrotherm KN-30 natural gas-fired boilers each rated at 3.0 million Btu per hour heat input. [003-0208-5-0771 through 5-0774]</p> <p>EU-27: One (1) Hydrotherm KN-10 natural gas-fired boiler rated at 1.0 million Btu per hour heat input used for production of HTHW located at ARFF Building. [003-0208-5-0794]</p> <p>EU-28: One (1) Cleaver Brooks CFH-700-50-15ST natural gas-fired boiler rated at 1.969 million Btu per hour heat input used for production of HTHW located at LSC Building. [003-0208-5-0808]</p> <p>EU-30: One (1) Trane natural gas-fired boiler rated at 1.65 million Btu per hour heat input used for heat located ARFF Building. [003-0208-5-0831]</p> <p>EU-33 and EU-34: Two (2) Hydrotherm KN-30 natural gas-fired boilers each rated at 3.00 million Btu per hour heat input used for production of HTHW located at the D-Pier Building. [003-0208-5-0880 through 5-0881]</p>

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Table IV – 3

3.1	<p><u>Applicable Standards/Limits:</u></p> <p>A. <u>Control of Visible Emissions</u> COMAR 26.11.09.05A – Fuel Burning Equipment “(2) Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity.” (3) Exceptions. “Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if: (a) The visible emissions are not greater than 40 percent opacity; and (b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period.”</p> <p>B. <u>Control of Nitrogen Oxides</u> COMAR 26.11.09.08B(5) - Operator Training. (a) For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation. (b) The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department.”</p> <p style="background-color: yellow; border: 1px solid red; display: inline-block; padding: 2px;">For EUs # 19, 20, 23 - 26, 33, and 34 only</p> <p style="text-decoration: underline wavy;">For EUs # 19, 20, & 23 – 26 only</p> <p>COMAR 26.11.09.08E. Requirements for Fuel-Burning Equipment with a Rated Heat Input Capacity of 100 Million Btu Per Hour or Less. “A person who owns or operates fuel-burning equipment with a rated heat input capacity of 100 Million Btu per hour or less shall: (1) Submit to the Department an identification of each affected installation, the rated heat input capacity of each installation, and the type of fuel burned in each; (2) Perform a combustion analysis for each installation at least once each year and optimize combustion based on the analysis; (3) Maintain the results of the combustion analysis at the site for at least 2 years and make this data available to the Department and the EPA upon request; (4) Once every 3 years, require each operator of the installation to attend operator training programs on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and</p>
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Table IV – 3

(5) Prepare and maintain a record of training program attendance for each operator at the site, and make these records available to the Department upon request.”

{For EUs # 27, 28, & 30 only}

COMAR 26.11.09.08F. Requirements for Space Heaters.

“(1) A person who owns or operates a space heater as defined in Regulation .01B of this chapter shall:

- (a) Submit to the Department a list of each affected installation on the premises and the types of fuel used in each installation;
- (b) Develop an operating and maintenance plan to minimize NO_x emissions based on the recommendations of equipment vendors and other information including the source's operating and maintenance experience;
- (c) Implement the operating and maintenance plan and maintain the plan at the premises for review upon request by the Department;
- (d) Require installation operators to attend in-State operator training programs once every 3 years on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and
- (e) Prepare and maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request.

(2) A person who owns or operates an installation that no longer qualifies as a space heater shall inform the Department not later than 60 days after the date when the fuel-burning equipment did not qualify, and shall meet the applicable fuel-burning equipment RACT requirement in this regulation.

COMAR 26.11.09.01B(15) states, **"Space heater"** means fuel-burning equipment that consumes more than 60 percent of its annual fuel during the period from October 31 of one year through March 31 of the following year. For the purpose of this regulation, annual fuel use is the total fuel consumed during the period October 1 of one year to September 30 of the following year, beginning October 1, 1989.”

C. Operating Limitation

The Permittee shall burn only natural gas in the ~~six (6)~~ boilers unless the Permittee applies for and receives an approval or permit from the Department to burn alternate fuels.

[Reference: COMAR 26.11.02.09A & MDE Permit Nos. 003-0208-5-0769 through 5-0774 issued on 05/13/13]

eight (8)

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	<p>performed that relates to combustion performance. [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Nitrogen Oxides</u> The Permittee shall maintain: <u>{For EUs # 19, 20, & 23 – 26 only}</u></p> <p>(1) Records of the results of the annual combustion analysis on site. [Reference: COMAR 26.11.09.08E(3)]</p> <p>(2) Record of training program attendance for each operator at the site. [Reference: COMAR 26.11.09.08E(5)]</p> <p><u>{For EU-27, EU-28 & EU-30 only}</u> The Permittee shall maintain:</p> <p>(1) Records of maintenance performed that relates to combustion performance in keeping with the requirements of an operations and maintenance plan. [Reference: COMAR 26.11.09.08F(1)(c)]</p> <p>(2) Record of training program attendance for each operator. [Reference: COMAR 26.11.09.08F(1)(e)].</p> <p>(3) An operations manual and preventive maintenance plan. [Reference: COMAR 26.11.09.08F(1)(b)].</p> <p>(4) Records of fuel use that demonstrate that the boiler meets the definition of a space heater. [Reference: COMAR 26.11.09.08K(3) and COMAR 26.11.03.06C].</p> <p>C. <u>Operational Limitation</u></p> <p>The Permittee shall maintain eight (8) monthly records of the total natural gas usage in million cubic feet for the six (6) boilers. [Reference: MDE Permit Nos. 003-0208-5-0769 thru 5-0774 issued on 05/13/2013 and COMAR 26.11.03.06]</p>
<p>3.5</p>	<p><u>Reporting Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u> The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, “Report of Excess Emissions and Deviations”.</p> <p>B. <u>Control of Nitrogen Oxides</u> The Permittee shall submit:</p> <p>(1) The results of combustion analysis to the department and the EPA upon request. [Reference: COMAR 26.11.09.08E(3)]</p> <p>(2) A record of training program attendance for each operator to the</p>

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Remove reference to Stage II

Table IV – 5a: MACT	
5a.0	<p><u>Emissions Unit Number(s): EU-7 - Storage Tank (Cont'd).</u></p> <p>EU-7 - One (1) motor gasoline storage tank (8000 gallons gasoline underground storage tank, Stage II) located in Field Maintenance Building 116. [003-0208-9-0894]</p>
5a.1	<p><u>Applicable Standards/Limits:</u></p> <p><u>Control of HAPs:</u> 40 CFR Part 63 Subpart CCCCCC—National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities 40 CFR §63.11110 - <u>What is the purpose of this subpart?</u> This subpart establishes national emission limitations and management practices for hazardous air pollutants (HAP) emitted from the loading of gasoline storage tanks at gasoline dispensing facilities (GDF). This subpart also establishes requirements to demonstrate compliance with the emission limitations and management practices.</p> <p>40 CFR §63.11111 - <u>Am I subject to the requirements in this subpart?</u> “(a) The affected source to which this subpart applies is each GDF that is located at an area source. The affected source includes each gasoline cargo tank during the delivery of product to a GDF and also includes each storage tank. (b) If your GDF has a monthly throughput of less than 10,000 gallons of gasoline, you must comply with the requirements in §63.11116. (c) If your GDF has a monthly throughput of 10,000 gallons of gasoline or more, you must comply with the requirements in §63.11117.”</p> <p>40 CFR §63.11116 - <u>Requirements for facilities with monthly throughput of less than 10,000 gallons of gasoline.</u> “(a) You must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following: (1) Minimize gasoline spills; (2) Clean up spills as expeditiously as practicable; (3) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use; (4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators. (b) You are not required to submit notifications or reports as specified in</p>

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SECTION V INSIGNIFICANT ACTIVITIES

Update based on
renewal application

This section provides a list of insignificant emissions units that were reported in the Title V permit application. The applicable Clean Air Act requirements, if any, are listed below the insignificant activity.

- (1) No. 33 Fuel burning equipment using gaseous fuels or no. 1 or no. 2 fuel oil, and having a heat input less than 1,000,000 Btu (1.06 gigajoules) per hour;

[For Areas III and IV]

The affected fuel burning units are subject to the following requirements:

COMAR 26.11.09.05A(2), which establishes that the Permittee may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers.

Exceptions: COMAR 26.11.09.05A(2) does not apply to emissions during load changing, soot blowing, start-up, or adjustments or occasional cleaning of control equipment if:

- (a) The visible emissions are not greater than 40 percent opacity; and
(b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period.

[For Distillate Fuel Oil]

COMAR 26.11.09.07A(2)(b), which establishes that the Permittee may not burn, sell, or make available for sale any distillate fuel with a sulfur content by weight in excess of 0.3 percent.

- (2) No. 27 Stationary internal combustion engines with an output less than 500 brake horsepower (373 kilowatts) and which are not used to generate electricity for sale or for peak or load shaving;

The specify affected units are subject to the following requirements:

- (A) COMAR 26.11.09.05E(2), Emissions During Idle Mode:
The Permittee may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.