



Minnesota Pollution Control Agency

Air Individual Permit
Major Amendment
00300245-003

Permittee: BAE Technology Center

Facility name: BAE Technology Center
4800 East River Road
Fridley, MN 55421
Anoka County

Operating permit issuance date: April 8, 2010

Expiration date: Non-expiring*

* All Title I Conditions do not expire

Major Amendment: January 20, 2016

Permit characteristics: State; Nonmajor for Part 70/ True minor for NSR; True Minor for NSR

Each new or revised condition designated "Title I Condition: SIP for SO₂" is not effective or enforceable until approved by U.S. Environmental Protection Agency (EPA) as a State Implementation Plan (SIP) revision under Title I of the Clean Air Act.

The emission units, control equipment and emission stacks at the stationary source authorized in this permit amendment are as described in the Permit Applications Table.

This permit amendment supersedes Air Emission Permit No. 00300245-002, and authorizes the Permittee to operate and modify the stationary source at the address listed above unless otherwise noted in the permit. The Permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Any additions or changes to conditions incorporated into SIP under 40 CFR § 52.1220, designated "Title I: SIP for SO₂" must go through the federal SIP approval process before becoming effective. Terms used in the permit are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

Unless otherwise indicated, all the Minnesota rules cited as the origin of the permit terms are incorporated into the SIP under 40 CFR § 52.1220 and as such as are enforceable by the EPA Administrator or citizens under the Clean Air Act.

Signature: **Steven S. Pak**

This document has been electronically signed.
for Don Smith, P.E., Manager
Air Quality Permits Section
Industrial Division

for the Minnesota Pollution Control Agency

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1. Permit applications table

Subsequent permit applications:

Title description	Application receipt date	Action number
State Permit	7/17/2007	00300245-001
Administrative Amendment	4/17/2014	00300245-002
Major Amendment	7/21/2015	00300245-003
Minor Amendment	4/28/2015	00300245-003
Administrative Amendment	12/23/2015	00300245-003

2. Where to send submittals

Send submittals that are required to be submitted to the U.S. EPA regional office to:

Chief Air Enforcement
Air and Radiation Branch
EPA Region V
77 West Jackson Boulevard
Chicago, Illinois 60604

Each submittal must be postmarked or received by the date specified in the applicable Table. Those submittals required by Minn. R. 7007.0100 to 7007.1850 must be certified by a responsible official, defined in Minn. R. 7007.0100, subp. 21. Other submittals shall be certified as appropriate if certification is required by an applicable rule or permit condition.

Send submittals that are required by the Acid Rain Program to:

U.S. Environmental Protection Agency
Clean Air Markets Division
1200 Pennsylvania Avenue NW (6204N)
Washington, D.C. 20460

Send any application for a permit or permit amendment to:

Fiscal Services – 6th Floor
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Also, where required by an applicable rule or permit condition, send to the Permit Document Coordinator notices of:

- a. Accumulated insignificant activities
- b. Installation of control equipment
- c. Replacement of an emissions unit, and
- d. Changes that contravene a permit term

Unless another person is identified in the applicable Table, send all other submittals to:

AQ Compliance Tracking Coordinator
Industrial Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

3. Facility description

The BAE Technology Center (Facility) is located at 4800 East River Road in Fridley, MN, Anoka County, Minnesota.

GPT Fridley Owner LLC (Permittee) owns and operates boilers and emergency generators in the city of Fridley, which was part of the purchase agreement, dated July 10, 2013, between ELT Minneapolis LLC and Fridley Land LLC and subsequent purchase agreement, dated July 22, 2015, between Fridley Land LLC and GPT Fridley Owner LLC. The facility was previously used for manufacturing operations and supplied heat and steam as permitted under Air Emissions Permit No. 00300020-001 (United Defense, L.P. Armament Systems Division). The facility now is an office and warehouse space which uses the boilers to provide heat for the office and warehouse workers. The emergency generators are used for stand-by power for both life-safety and communications in the event that electrical power is lost to the site.

This permit is a Joint Title I/Title V Federally Enforceable State Operating Permit, as it includes non-expiring Title I Conditions to implement the State Implementation Plan (SIP), pursuant to 40 CFR pt. 50, 40 CFR pt. 51, 40 CFR § 52.1220, Minn. R. 7007.0100, subp. 25(B), and Minn. R. 7007.1050, subp. 4.

The emissions of concern from the facility are sulfur dioxide (SO₂) and nitrogen oxides (NO_x). The emissions from the facility are below major source thresholds such that the facility is classified as a non-major source under the federal Operating Permit Program (40 CFR pt. 70) and a non-major source under federal New Source Review regulations (40 CFR § 52.21). The facility is an area source under federal National Emission Standards for Hazardous Air Pollutants (40 CFR pt. 63).

4. Summary of subject items

SI ID: Description	Relationship Type	Related SI ID: Description
ACTV 1: Insignificant Activities		
EQUI 1: Boiler No. 4	sends to	STRU 8: Boiler No. 4
EQUI 2: Standby Generator-Sub 3(W)	sends to	STRU 10: Cummins Standby Gen - Sub 3W
EQUI 3: Standby Generator-Sub 3(E)	sends to	STRU 11: Cummins Standby Gen - Sub 3E
EQUI 9: Boiler No. 5	sends to	STRU 9: Boiler No. 5
EQUI 10: Emergency Fire Pump	sends to	STRU 12: Emergency Fire Pump
STRU 8: Boiler No. 4		
STRU 9: Boiler No. 5		
STRU 10: Cummins Standby Gen - Sub 3W		
STRU 11: Cummins Standby Gen - Sub 3E		
STRU 12: Emergency Fire Pump		
TFAC 1: BAE Technology Center		

5. Limits and other requirements

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
TFAC 1	00300245	BAE Technology Center	
	5.1.1		<p>ACTIVITIES NOT REQUIRING A MODIFICATION TO THE SIP: The Permittee is authorized to make changes to the facility without obtaining a modification to the SIP as long as the change does not do or result in any of the following:</p> <ol style="list-style-type: none"> 1. An exceedance of the limitations at which sulfur dioxide is emitted from any emission unit at the facility; and 2. A physical change of the equipment that affects the stack parameters described in Appendix B. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
	5.1.2		<p>ACTIVITIES REQUIRING A MODIFICATION TO THE SIP: Activities requiring a modification of the SIP prior to the Permittee commencing the activity include, but are not limited to, the following:</p> <ol style="list-style-type: none"> 1. Any decrease in the design and/or maximum stack gas volumetric flow rate below that contained in Appendix B; 2. Any decrease in the design and/or maximum stack gas exit temperature below that contained in Appendix B; 3. Any reduction in stack height below that contained in Appendix B; 4. Any increase in stack exit diameter above that contained in Appendix B; and 5. Any construction or modification of structures that increase the effective structural dimensions. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
	5.1.3		<p>Construction and Operation of SIP Emission Unit: The Permittee may begin actual construction of a new emission unit or modification to existing emission unit upon permit issuance. However, the Permittee shall not operate any new emission unit or modified emission unit until any required SIP amendment is approved by U.S. EPA. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]</p>
	5.1.4		<p>General Operating and Maintenance Requirements for the SIP: The Permittee shall operate and maintain the process equipment described in Appendix B according to the parameters set forth in Appendix B. The parameters were used in the computer modeling performed to demonstrate that the SO2 maintenance area will attain compliance with the SO2 NAAQS. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]</p>

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
	5.1.5		<p>Non-Permanent Records for SIP: The Permittee shall retain all records at the facility for a minimum of six (6) years following the date of the required monitoring, sample, measurement, or report that corresponds with the SIP Title I Condition. All required documents, records, reports and plans in a form suitable for determination of the facility's compliance with the SIP by EPA or MPCA staff. The Permittee shall maintain the information at the facility in files which are easily accessible of inspections by EPA or MPCA staff, and are available for inspection. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]</p>
	5.1.6		<p>Reporting: The Permittee may undertake certain changes to the facility without obtaining a modification to the SIP. However, if the Permittee does make a change, and if the change in any way affects SO2 emissions, the Permittee shall notify the Commissioner in writing at least 30 days prior to undertaking the change. The notification shall describe the change and why it does not require a modification to the SIP. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]</p>
	5.1.7		<p>The Permittee shall comply with National Primary and Secondary Ambient Air Quality Standards, 40 CFR pt. 50, and the Minnesota Ambient Air Quality Standards, Minn. R. 7009.0010 to 7009.0080. Compliance shall be demonstrated upon written request by the MPCA. [Minn. R. 7007.0100, subp. 7(A), Minn. R. 7007.0100, subp. 7(L), Minn. R. 7007.0100, subp. 7(M), Minn. R. 7007.0800, subp. 1, Minn. R. 7007.0800, subp. 2, Minn. R. 7007.0800, subp. 4, Minn. R. 7009.0010-0080, Minn. Stat. 116.07, subd. 4a, Minn. Stat. 116.07, subd. 9]</p>
	5.1.8		<p>Permit Appendices: This permit contains appendices as listed in the permit Table of Contents. The Permittee shall comply with all requirements contained in Appendix A: Insignificant Activities and General Applicable Requirements.</p> <p>Modeling parameters in Appendix B: Modeling Information (State Implementation Plan for SO2) are included for reference only as described elsewhere in this permit. [Minn. R. 7007.0800, subp. 2]</p>
	5.1.9		<p>PERMIT SHIELD: Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provision of the applicable requirement identified in the permit as the basis of each condition. Subject to the limitations of Minn. R. 7007.1800 and 7017.0100, subp. 2, notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.</p> <p>This permit shall not alter or affect the liability of the Permittee for any violation of applicable requirements prior to or at the time of permit issuance. [Minn. R. 7007.1800, (A)(2)]</p>

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
	5.1.10		Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted. [Minn. R. 7011.0020]
	5.1.11		Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated. [Minn. R. 7007.0800, subp. 16(J), Minn. R. 7007.0800, subp. 2]
	5.1.12		Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. At a minimum, the O & M plan shall identify all air pollution control equipment and control practices and shall include a preventative maintenance program for the equipment and practices, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment and practices to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment and practices, and the records kept to demonstrate plan implementation. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 16(J)]
	5.1.13		Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate. [Minn. R. 7019.1000, subp. 4]
	5.1.14		Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150. [Minn. R. 7011.0150]
	5.1.15		Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act. [Minn. R. 7030.0010-7030.0080]
	5.1.16		Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A). [Minn. R. 7007.0800, subp. 9(A)]
	5.1.17		The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16. [Minn. R. 7007.0800, subp. 16]
	5.1.18		Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in in this permit. [Minn. R. ch. 7017]

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
	5.1.19		<p>Performance Test Notifications and Submittals: Performance Tests are due as outlined in this permit. Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-test Meeting: due 7 days before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy: due 105 days after each Performance Test</p> <p>The Notification, Test Plan, and Test Report may be submitted in an alternative format as allowed by Minn. R. 7017.2018. [Minn. R. 7017.2018, Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]</p>
	5.1.20		<p>Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as stated in the MPCA's Notice of Compliance letter granting preliminary approval. Preliminary approval is based on formal review of a subsequent performance test on the same unit as specified by Minn. R. 7017.2025, subp. 3. The limit is final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025, subp. 3]</p>
	5.1.21		<p>Monitoring Equipment Calibration - The Permittee shall either:</p> <ol style="list-style-type: none"> 1. Calibrate or replace required monitoring equipment every 12 months; or 2. Calibrate at the frequency stated in the manufacturer's specifications. <p>For each monitor, the Permittee shall maintain a record of all calibrations, including the date conducted, and any corrective action that resulted. The Permittee shall include the calibration frequencies, procedures, and manufacturer's specifications (if applicable) in the Operations and Maintenance Plan. Any requirements applying to continuous emission monitors are listed separately in this permit. [Minn. R. 7007.0800, subp. 4(D)]</p>
	5.1.22		<p>Operation of Monitoring Equipment: Unless noted elsewhere in this permit, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system. [Minn. R. 7007.0800, subp. 4(D)]</p>

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
	5.1.23		Recordkeeping: Retain all records at the stationary source, unless otherwise specified within this permit, for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A). [Minn. R. 7007.0800, subp. 5(C)]
	5.1.24		Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350, subp. 2), including records of the emissions resulting from those changes. [Minn. R. 7007.0800, subp. 5(B)]
	5.1.25		If the Permittee determines that no permit amendment or notification is required prior to making a change, the Permittee must retain records of all calculations required under Minn. R. 7007.1200. These records shall be kept for a period of five years from the date that the change was made. The records shall be kept at the stationary source for the current calendar year of operation and may be kept at the stationary source or office of the stationary source for all other years. The records may be maintained in either electronic or paper format. [Minn. R. 7007.1200, subp. 4]
	5.1.26		<p>Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3.</p> <p>At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over. [Minn. R. 7019.1000, subp. 3]</p>

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
	5.1.27		<p>Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2.</p> <p>At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over. [Minn. R. 7019.1000, subp. 2]</p>
	5.1.28		<p>Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment. [Minn. R. 7019.1000, subp. 1]</p>
	5.1.29		<p>Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description:</p> <ol style="list-style-type: none"> 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation. [Minn. R. 7019.1000, subp. 1]
	5.1.30		<p>Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.</p> <p>Upon adoption of a new or amended federal applicable requirement, and if there are more than 3 years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150 - 7007.1500]</p>

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
	5.1.31		Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H). Performance testing deadlines from the General Provisions of 40 CFR pt. 60 and pt. 63 are examples of deadlines for which the MPCA does not have authority to grant extensions and therefore do not meet the requirements of Minn. R. 7007.1400, subp. 1(H). [Minn. R. 7007.1400, subp. 1(H)]
	5.1.32		Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance, to be submitted on a form approved by the Commissioner. [Minn. R. 7019.3000-7019.3100]
	5.1.33		Emission Fees: due 30 days after receipt of an MPCA bill. [Minn. R. 7002.0005-7002.0095]
EQUI 1	EU004	Boiler No. 4	
	5.2.1		Sulfur Content of Fuel <= 0.05 percent by weight for distillate fuel oil. THIS CONDITION WILL BECOME EFFECTIVE ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
	5.2.2		Fuel Restriction: The Permittee is authorized to combust natural gas only. THIS CONDITION WILL BE TERMINATED ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Minn. R. 7005.0100, subp. 35a]
	5.2.3		Fuel Restriction: The Permittee is authorized to combust natural gas or distillate fuel oil meeting the requirements of 40 CFR Section 80.510(c) only. THIS CONDITION WILL BECOME EFFECTIVE ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
	5.2.4		Fuel Supplier Certification: The Permittee shall obtain and maintain written fuel supplier certification from the fuel supplier for each shipment of distillate fuel oil delivered to the facility. Each fuel certification shall include the following information: the name of the fuel oil supplier; the sulfur content of the fuel oil; and method used to determine the sulfur content of the fuel oil. THIS CONDITION WILL BECOME EFFECTIVE ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
	5.2.5		The Permittee shall keep records of fuel type and usage on a monthly basis by the 28th day of each month. [Minn. R. 7007.0800, subp. 5]
	5.2.6		<p>This unit is a gas-fired boiler as defined by 40 CFR pt. 63, subp. JJJJJ and is not subject to 40 CFR pt. 63, subp. JJJJJ or any requirements in 40 CFR pt. 63, subp. JJJJJ.</p> <p>A gas-fired boiler is defined in 40 CFR Section 63.11237 as 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 periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year. [40 CFR 63.11195(e), 40 CFR 63.11237, Minn. R. 7011.7055]</p>
	5.2.7		The affected facility to which 40 CFR pt. 60, subp. Dc 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/hr)) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr). [40 CFR 60.40c(a), Minn. R. 7011.0570]
	5.2.8		Sulfur Content of Fuel <= 0.5 percent by weight for distillate fuel oil or less than or equal to 215 ng/J (0.50 lb/MMBtu) heat input from distillate fuel oil. [40 CFR 60.42c(d), Minn. R. 7011.0570]
	5.2.9		Fuel Supplier Certification: The Permittee shall determine compliance with the fuel oil sulfur limits based on a certification from the fuel supplier. [40 CFR 60.42c(h), Minn. R. 7011.0570]
	5.2.10		The sulfur dioxide emission limits and fuel oil sulfur limits under 40 CFR Section 60.42c apply at all times, including periods of startup, shutdown, and malfunction. [40 CFR 60.42c(i), Minn. R. 7011.0570]
	5.2.11		This unit combusts only natural gas and distillate fuel oil that contains no more than 0.50 weight percent sulfur and therefore is not subject to the particulate matter emission limits under 40 CFR Section 60.43c. The Permittee shall follow the applicable procedures of 40 CFR Section 60.48c(f) to demonstrate compliance under 40 CFR Section 60.43c(e)(4). [40 CFR 60.43c(e)(4), 40 CFR 60.45c(d), Minn. R. 7011.0570]

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
	5.2.12		<p>Fuel Supplier Certification Requirements:</p> <p>The certification shall include the following information for distillate fuel oil:</p> <ol style="list-style-type: none"> 1. The name of the oil supplier; 2. A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR Section 60.41c; and 3. The sulfur content of the oil. <p>This certification shall be obtained for each delivery of distillate fuel oil. [40 CFR 60.48c(f)(1), Minn. R. 7011.0570]</p>
	5.2.13		<p>The Permittee shall record and maintain records of the amount of each fuel combusted in Boiler No. 4 during each operating day; OR</p> <p>The Permittee may elect to record and maintain records of the amount of each fuel combusted in Boiler No. 4 during each calendar month. If this option is chosen, by the last day of each calendar month, the Permittee shall record the amount of each fuel combusted in Boiler No. 4 during the previous calendar month.</p> <p>These records shall consist of purchase records, receipts, or fuel meter readings. [40 CFR 60.48c(g), Minn. R. 7011.0570]</p>
EQUI 2	EU005	Standby Generator-Sub 3(W)	
	5.3.1		Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
	5.3.2		Sulfur Dioxide <= 0.50 pounds per million Btu heat input. The potential to emit from the unit is 0.29 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2]
	5.3.3		Sulfur Content of Fuel <= 0.05 percent by weight for diesel fuel. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
	5.3.4		Fuel Restriction: The Permittee is authorized to burn diesel fuel only. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
	5.3.5		Fuel Supplier Certification: The Permittee shall obtain and maintain written fuel supplier certification from the fuel supplier for each shipment of diesel fuel oil delivered to the facility. Each fuel certification shall include the following information: the name of the fuel oil supplier; the sulfur content of the fuel oil and method used to determine the sulfur content of the fuel oil. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
	5.3.6		Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, limiting operation to 500 hours per year. [Minn. R. 7007.0800, subps. 4-5]
	5.3.7		The Permittee shall keep records of fuel type and usage on a monthly basis by the 28th day of each month. [Minn. R. 7007.0800, subp. 5]
	5.3.8		This unit is an existing affected source as defined under 40 CFR pt. 63, subp. ZZZZ and the facility is an area source as defined at 40 CFR Section 63.2. However, the unit is a commercial emergency stationary RICE that meets the criteria in 40 CFR Section 63.6585(f)(2), so 40 CFR pt. 63, subp. ZZZZ does not apply to this unit. The emergency stationary RICE must meet the definition of an emergency stationary RICE in 40 CFR Section 63.6675, which includes operating according to the provisions specified in 40 CFR Section 63.6640(f). [40 CFR 63.6585(f), Minn. R. 7011.8150]
	5.3.9		The emergency stationary RICE cannot operate or be contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR Section 63.6640(f)(2)(ii) and (iii) and the unit cannot operate for the purpose specified in 40 CFR Section 63.6640(f)(4)(ii). [40 CFR 63.6585(f)(2), Minn. R. 7011.8150]
	5.3.10		The Permittee must install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f), Minn. R. 7011.8150]
	5.3.11		The Permittee must operate the emergency stationary RICE according to the requirements in 40 CFR Section 63.6640(f)(1) through (4). In order for the engine to be considered an emergency stationary RICE under 40 CFR pt. 63, subp. ZZZZ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in nonemergency situations for 50 hours per year, as described in 40 CFR Section 63.6640(f)(1) through (4), is prohibited. If the Permittee does not operate the engine according to the requirements in 40 CFR Section 63.6640(f)(1) through (4), the engine will not be considered an emergency engine under 40 CFR pt. 63, subp. ZZZZ and must meet all requirements for nonemergency engines. [40 CFR 63.6640(f), Minn. R. 7011.8150]
	5.3.12		There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 63.6640(f)(1), Minn. R. 7011.8150]

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
	5.3.13		<p>The Permittee may operate the emergency stationary RICE for any combination of the purposes specified in 40 CFR Section 63.6640(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR Section 63.6640(f)(3) and (4) counts as part of the 100 hours per calendar year allowed by 40 CFR Section 63.6640(f)(2). [40 CFR 63.6640(f)(2), Minn. R. 7011.8150]</p>
	5.3.14		<p>The Permittee may operate the 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, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee 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 Permittee maintains records indication that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. [40 CFR 63.6640(f)(2)(i), Minn. R. 7011.8150]</p>
	5.3.15		<p>This provision remains valid and in effect until revised by the U.S. EPA or until May 1, 2016 (the date which the D.C Circuit Court's mandate to vacate the provision is effective), whichever is earlier. Afterwards, this provision is no longer effective. The Permittee shall not operate according to this provision if vacated or shall operate according to the provision as amended by the U.S. EPA.</p> <p>Emergency stationary RICE may be operated, for no more than 15 hours per calendar year, for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see Section 63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [40 CFR 63.6585(f), 40 CFR 63.6640(f)(2)(ii), Minn. R. 7011.8150]</p>
	5.3.16		<p>This provision remains valid and in effect until revised by the U.S. EPA or until May 1, 2016 (the date which the D.C Circuit Court's mandate to vacate the provision is effective), whichever is earlier. Afterwards, this provision is no longer effective. The Permittee shall not operate according to this provision if vacated or shall operate according to the provision as amended by the U.S. EPA.</p> <p>Emergency stationary RICE may be operated, for no more than 15 hours per calendar year, for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [40 CFR 63.6585(f), 40 CFR 63.6640(f)(2)(iii), Minn. R. 7011.8150]</p>

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
	5.3.17		Emergency stationary RICE 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 and emergency demand response provided in 40 CFR Section 63.6640(f)(2). 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. [40 CFR 63.6585(f), 40 CFR 63.6640(f)(4), Minn. R. 7011.8150]
	5.3.18		The Permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in 40 CFR Section 63.6640(f)(2)(ii) or (iii), the Permittee must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [40 CFR 63.6655(f), Minn. R. 7011.8150]
	5.3.19		<p>The Permittee must maintain all records in a form suitable and readily available for expeditious review according to 40 CFR Section 63.10(b)(1).</p> <p>As specified in 40 CFR Section 63.10(b)(1), the Permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.</p> <p>The Permittee must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR section 63.10(b)(1). [40 CFR 63.10(b)(1), 40 CFR 63.6660, Minn. R. 7011.8150, Minn. R. 7019.0100, subp. 2(B)]</p>
EQUI 3	EU006	Standby Generator-Sub 3(E)	
	5.4.1		Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
	5.4.2		Sulfur Dioxide <= 0.50 pounds per million Btu heat input. The potential to emit from the unit is 0.29 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2]
	5.4.3		Sulfur Content of Fuel <= 0.05 percent by weight for diesel fuel. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
	5.4.4		Fuel Restriction: The Permittee is authorized to burn diesel fuel only. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
	5.4.5		Fuel Supplier Certification: The Permittee shall obtain and maintain written fuel supplier certification from the fuel supplier for each shipment of diesel fuel oil delivered to the facility. Each fuel certification shall include the following information: the name of the fuel oil supplier; the sulfur content of the fuel oil and method used to determine the sulfur content of the fuel oil. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
	5.4.6		Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, limiting operation to 500 hours per year. [Minn. R. 7007.0800, subps. 4-5]
	5.4.7		The Permittee shall keep records of fuel type and usage on a monthly basis by the 28th day of each month. [Minn. R. 7007.0800, subp. 5]
	5.4.8		This unit is an existing affected source as defined under 40 CFR pt. 63, subp. ZZZZ and the facility is an area source as defined at 40 CFR Section 63.2. However, the unit is a commercial emergency stationary RICE that meets the criteria in 40 CFR Section 63.6585(f)(2), so 40 CFR pt. 63, subp. ZZZZ does not apply to this unit. The emergency stationary RICE must meet the definition of an emergency stationary RICE in 40 CFR Section 63.6675, which includes operating according to the provisions specified in 40 CFR Section 63.6640(f). [40 CFR 63.6585(f), Minn. R. 7011.8150]
	5.4.9		The emergency stationary RICE cannot operate or be contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR Section 63.6640(f)(2)(ii) and (iii) and the unit cannot operate for the purpose specified in 40 CFR Section 63.6640(f)(4)(ii). [40 CFR 63.6585(f)(2), Minn. R. 7011.8150]
	5.4.10		The Permittee must install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f), Minn. R. 7011.8150]

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
	5.4.11		The Permittee must operate the emergency stationary RICE according to the requirements in 40 CFR Section 63.6640(f)(1) through (4). In order for the engine to be considered an emergency stationary RICE under 40 CFR pt. 63, subp. ZZZZ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in nonemergency situations for 50 hours per year, as described in 40 CFR Section 63.6640(f)(1) through (4), is prohibited. If the Permittee does not operate the engine according to the requirements in 40 CFR Section 63.6640(f)(1) through (4), the engine will not be considered an emergency engine under 40 CFR pt. 63, subp. ZZZZ and must meet all requirements for nonemergency engines. [40 CFR 63.6640(f), Minn. R. 7011.8150]
	5.4.12		There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 63.6640(f)(1), Minn. R. 7011.8150]
	5.4.13		The Permittee may operate the emergency stationary RICE for any combination of the purposes specified in 40 CFR Section 63.6640(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR Section 63.6640(f)(3) and (4) counts as part of the 100 hours per calendar year allowed by 40 CFR Section 63.6640(f)(2). [40 CFR 63.6640(f)(2), Minn. R. 7011.8150]
	5.4.14		The Permittee may operate the 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, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee 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 Permittee maintains records indication that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. [40 CFR 63.6640(f)(2)(i), Minn. R. 7011.8150]

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
	5.4.15		<p>This provision remains valid and in effect until revised by the U.S. EPA or until May 1, 2016 (the date which the D.C Circuit Court's mandate to vacate the provision is effective), whichever is earlier. Afterwards, this provision is no longer effective. The Permittee shall not operate according to this provision if vacated or shall operate according to the provision as amended by the U.S. EPA.</p> <p>Emergency stationary RICE may be operated, for no more than 15 hours per calendar year, for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see Section 63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [40 CFR 63.6585(f), 40 CFR 63.6640(f)(2)(ii), Minn. R. 7011.8150]</p>
	5.4.16		<p>This provision remains valid and in effect until revised by the U.S. EPA or until May 1, 2016 (the date which the D.C Circuit Court's mandate to vacate the provision is effective), whichever is earlier. Afterwards, this provision is no longer effective. The Permittee shall not operate according to this provision if vacated or shall operate according to the provision as amended by the U.S. EPA.</p> <p>Emergency stationary RICE may be operated, for no more than 15 hours per calendar year, for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [40 CFR 63.6585(f), 40 CFR 63.6640(f)(2)(iii), Minn. R. 7011.8150]</p>
	5.4.17		<p>Emergency stationary RICE 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 and emergency demand response provided in 40 CFR Section 63.6640(f)(2). 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. [40 CFR 63.6585(f), 40 CFR 63.6640(f)(4), Minn. R. 7011.8150]</p>

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
	5.4.18		<p>The Permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in 40 CFR Section 63.6640(f)(2)(ii) or (iii), the Permittee must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [40 CFR 63.6655(f), Minn. R. 7011.8150]</p>
	5.4.19		<p>The Permittee must maintain all records in a form suitable and readily available for expeditious review according to 40 CFR Section 63.10(b)(1).</p> <p>As specified in 40 CFR Section 63.10(b)(1), the Permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.</p> <p>The Permittee must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR section 63.10(b)(1). [40 CFR 63.10(b)(1), 40 CFR 63.6660, Minn. R. 7011.8150, Minn. R. 7019.0100, subp. 2(B)]</p>
EQUI 9	EU009	Boiler No. 5	
	5.5.1		<p>The Permittee is authorized to construct and operate Boiler No. 5 within 18 months after permit issuance of Permit No. 00300245-003. The unit shall meet all the requirements of this permit and design specifications submitted in the application for installation of Boiler No. 5 (e.g. EQUI 9). [Minn. R. 7007.0800, subp. 2]</p>
	5.5.2		<p>Sulfur Content of Fuel \leq 0.05 percent by weight for distillate fuel oil.</p> <p>THIS CONDITION WILL BECOME EFFECTIVE ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Title I Condition: 40 CFR 50.4(SO₂ SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]</p>
	5.5.3		<p>Fuel Restriction: The Permittee is authorized to combust natural gas only.</p> <p>THIS CONDITION WILL BE TERMINATED ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Minn. R. 7005.0100, subp. 35a]</p>

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
	5.5.4		<p>Fuel Restriction: The Permittee is authorized to combust natural gas or distillate fuel oil meeting the requirements of 40 CFR Section 80.510(c) only.</p> <p>THIS CONDITION WILL BECOME EFFECTIVE ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]</p>
	5.5.5		<p>Fuel Supplier Certification: The Permittee shall obtain and maintain written fuel supplier certification from the fuel supplier for each shipment of distillate fuel oil delivered to the facility. Each fuel certification shall include the following information: the name of the fuel oil supplier; the sulfur content of the fuel oil; and method used to determine the sulfur content of the fuel oil.</p> <p>THIS CONDITION WILL BECOME EFFECTIVE ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]</p>
	5.5.6		<p>The Permittee shall keep records of fuel type and usage on a monthly basis by the 28th day of each month. [Minn. R. 7007.0800, subp. 5]</p>
	5.5.7		<p>This unit is a gas-fired boiler as defined by 40 CFR pt. 63, subp. JJJJJ and is not subject to 40 CFR pt. 63, subp. JJJJJ or any requirements in 40 CFR pt. 63, subp. JJJJJ.</p> <p>A gas-fired boiler is defined in 40 CFR Section 63.11237 as 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 periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year. [40 CFR 63.11195(e), 40 CFR 63.11237, Minn. R. 7011.7055]</p>
	5.5.8		<p>The affected facility to which 40 CFR pt. 60, subp. Dc 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/hr)) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr). [40 CFR 60.40c(a), Minn. R. 7011.0570]</p>
	5.5.9		<p>Sulfur Content of Fuel <= 0.5 percent by weight for distillate fuel oil or less than or equal to 215 ng/J (0.50 lb/MMBtu) heat input from distillate fuel oil. [40 CFR 60.42c(d), Minn. R. 7011.0570]</p>
	5.5.10		<p>Fuel Supplier Certification: The Permittee shall determine compliance with the fuel oil sulfur limits based on a certification from the fuel supplier. [40 CFR 60.42c(h), Minn. R. 7011.0570]</p>

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
	5.5.11		The sulfur dioxide emission limits and fuel oil sulfur limits under 40 CFR Section 60.42c apply at all times, including periods of startup, shutdown, and malfunction. [40 CFR 60.42c(i), Minn. R. 7011.0570]
	5.5.12		This unit combusts only natural gas and distillate fuel oil that contains no more than 0.50 weight percent sulfur and therefore is not subject to the particulate matter emission limits under 40 CFR Section 60.43c. The Permittee shall follow the applicable procedures of 40 CFR Section 60.48c(f) to demonstrate compliance under 40 CFR Section 60.43c(e)(4). [40 CFR 60.43c(e)(4), 40 CFR 60.45c(d), Minn. R. 7011.0570]
	5.5.13		<p>Fuel Supplier Certification Requirements:</p> <p>The certification shall include the following information for distillate fuel oil:</p> <ol style="list-style-type: none"> 1. The name of the oil supplier; 2. A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR Section 60.41c; and 3. The sulfur content of the oil. <p>This certification shall be obtained for each delivery of distillate fuel oil. [40 CFR 60.48c(f)(1), Minn. R. 7011.0570]</p>
	5.5.14		<p>The Permittee shall record and maintain records of the amount of each fuel combusted in Boiler No. 5 during each operating day; OR</p> <p>The Permittee may elect to record and maintain records of the amount of each fuel combusted in Boiler No. 5 during each calendar month. If this option is chosen, by the last day of each calendar month, the Permittee shall record the amount of each fuel combusted in Boiler No. 5 during the previous calendar month.</p> <p>These records shall consist of purchase records, receipts, or fuel meter readings. [40 CFR 60.48c(g), Minn. R. 7011.0570]</p>
EQUI 10	EU010	Emergency Fire Pump	
	5.6.1		Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
	5.6.2		Sulfur Dioxide <= 0.50 pounds per million Btu heat input. The potential to emit from the unit is 0.29 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2]
	5.6.3		Fuel type: Diesel fuel meeting the requirements of 40 CFR Section 80.510(c) only by design. [Minn. R. 7005.0100, subp. 35a]

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
	5.6.4		Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, limiting operation to 500 hours per year. [Minn. R. 7007.0800, subps. 4-5]
	5.6.5		The Permittee shall keep records of fuel type and usage on a monthly basis by the 28th day of each month. [Minn. R. 7007.0800, subp. 5]
	5.6.6		This unit is an existing affected source as defined under 40 CFR pt. 63, subp. ZZZZ and the facility is an area source as defined at 40 CFR Section 63.2. However, the unit is a commercial emergency stationary RICE that meets the criteria in 40 CFR Section 63.6585(f)(2), so 40 CFR pt. 63, subp. ZZZZ does not apply to this unit. The emergency stationary RICE must meet the definition of an emergency stationary RICE in 40 CFR Section 63.6675, which includes operating according to the provisions specified in 40 CFR Section 63.6640(f). [40 CFR 63.6585(f), Minn. R. 7011.8150]
	5.6.7		The emergency stationary RICE cannot operate or be contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR Section 63.6640(f)(2)(ii) and (iii) and the unit cannot operate for the purpose specified in 40 CFR Section 63.6640(f)(4)(ii). [40 CFR 63.6585(f)(2), Minn. R. 7011.8150]
	5.6.8		The Permittee must install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f), Minn. R. 7011.8150]
	5.6.9		The Permittee must operate the emergency stationary RICE according to the requirements in 40 CFR Section 63.6640(f)(1) through (4). In order for the engine to be considered an emergency stationary RICE under 40 CFR pt. 63, subp. ZZZZ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in nonemergency situations for 50 hours per year, as described in 40 CFR Section 63.6640(f)(1) through (4), is prohibited. If the Permittee does not operate the engine according to the requirements in 40 CFR Section 63.6640(f)(1) through (4), the engine will not be considered an emergency engine under 40 CFR pt. 63, subp. ZZZZ and must meet all requirements for nonemergency engines. [40 CFR 63.6640(f), Minn. R. 7011.8150]
	5.6.10		There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 63.6640(f)(1), Minn. R. 7011.8150]

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
	5.6.11		<p>The Permittee may operate the emergency stationary RICE for any combination of the purposes specified in 40 CFR Section 63.6640(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR Section 63.6640(f)(3) and (4) counts as part of the 100 hours per calendar year allowed by 40 CFR Section 63.6640(f)(2). [40 CFR 63.6640(f)(2), Minn. R. 7011.8150]</p>
	5.6.12		<p>The Permittee may operate the 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, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee 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 Permittee maintains records indication that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. [40 CFR 63.6640(f)(2)(i), Minn. R. 7011.8150]</p>
	5.6.13		<p>This provision remains valid and in effect until revised by the U.S. EPA or until May 1, 2016 (the date which the D.C Circuit Court's mandate to vacate the provision is effective), whichever is earlier. Afterwards, this provision is no longer effective. The Permittee shall not operate according to this provision if vacated or shall operate according to the provision as amended by the U.S. EPA.</p> <p>Emergency stationary RICE may be operated, for no more than 15 hours per calendar year, for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see Section 63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [40 CFR 63.6585(f), 40 CFR 63.6640(f)(2)(ii), Minn. R. 7011.8150]</p>
	5.6.14		<p>This provision remains valid and in effect until revised by the U.S. EPA or until May 1, 2016 (the date which the D.C Circuit Court's mandate to vacate the provision is effective), whichever is earlier. Afterwards, this provision is no longer effective. The Permittee shall not operate according to this provision if vacated or shall operate according to the provision as amended by the U.S. EPA.</p> <p>Emergency stationary RICE may be operated, for no more than 15 hours per calendar year, for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [40 CFR 63.6585(f), 40 CFR 63.6640(f)(2)(iii), Minn. R. 7011.8150]</p>

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
	5.6.15		<p>Emergency stationary RICE 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 and emergency demand response provided in 40 CFR Section 63.6640(f)(2). 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. [40 CFR 63.6585(f), 40 CFR 63.6640(f)(4), Minn. R. 7011.8150]</p>
	5.6.16		<p>The Permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in 40 CFR Section 63.6640(f)(2)(ii) or (iii), the Permittee must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [40 CFR 63.6655(f), Minn. R. 7011.8150]</p>
	5.6.17		<p>The Permittee must maintain all records in a form suitable and readily available for expeditious review according to 40 CFR Section 63.10(b)(1).</p> <p>As specified in 40 CFR Section 63.10(b)(1), the Permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.</p> <p>The Permittee must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR section 63.10(b)(1). [40 CFR 63.10(b)(1), 40 CFR 63.6660, Minn. R. 7011.8150, Minn. R. 7019.0100, subp. 2(B)]</p>

6. Submittal/action requirements

This section lists most of the submittals required by this permit. Please note that some submittal requirements may appear in the Limits and Other Requirements section, or, if applicable, within a Compliance Schedule section.

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
TFAC 1	00300245	BAE Technology Center	
	6.1.1		The Permittee shall submit an annual report : Due annually, by the 30th of January. The Permittee shall submit this report to the Commissioner. The report shall contain the following information: a record of data used in calculating SO2 emissions, and calculations of the SO2 emissions; a record of each unscheduled startup, shutdown, and breakdown of process equipment; a summary record of excess SO2 emissions (or the Permittee shall state if no exceedances, and noncompliance conditions occurred in the calendar year). [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
	6.1.2		The Permittee shall submit a semiannual deviations report : Due semiannually, by the 30th of January and July. The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. If no deviations have occurred, the Permittee shall submit the report stating no deviations. [Minn. R. 7007.0800, subp. 6(A)(2)]
	6.1.3		The Permittee shall submit a compliance certification : Due annually, by the 31st of January (for the previous calendar year). The Permittee shall submit this to the Commissioner on a form approved by the Commissioner. This report covers all deviations experienced during the calendar year. [Minn. R. 7007.0800, subp. 6(C)]
EQUI 1	EU004	Boiler No. 4	
	6.2.1		The Permittee shall submit a semiannual compliance report : Due by 31 days after end of each calendar half-year. The semiannual compliance report must contain the following: <ol style="list-style-type: none"> 1. Calendar dates covered in the reporting period; 2. Records of fuel supplier certification including the name of the fuel oil supplier, a statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR Section 60.41c, and the sulfur content or maximum sulfur content of the oil; and 3. A certified statement signed by the Permittee that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period. <p>This report may be submitted with the Semiannual Deviations Report listed elsewhere in this permit. [40 CFR 60.48c(d), 40 CFR 60.48c(e), 40 CFR 60.48c(j), Minn. R. 7011.0570]</p>

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
EQUI 9	EU009	Boiler No. 5	
	6.3.1		The Permittee shall submit a notification of the date construction began : Due 30 calendar days after Date of Construction Start. Submit the name and number of the Subject Item, the design heat input capacity, identification of fuels to be combusted in the unit, and the date construction began. The Permittee shall submit the notification to both the Commissioner and to the U.S. EPA regional office in Chicago. [40 CFR 60.48c(a), 40 CFR 60.7(a)(1), Minn. R. 7007.0800, subp. 16(L), Minn. R. 7011.0570, Minn. R. 7019.0100, subp. 1]
	6.3.2		The Permittee shall submit a notification of the actual date of initial startup : Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7007.0500, subp. 42a. The Permittee shall submit the notification to both the Commissioner and to the U.S. EPA regional office in Chicago. [40 CFR 60.48c(a), 40 CFR 60.7(a)(3), Minn. R. 7007.0800, subp. 16(L), Minn. R. 7011.0570, Minn. R. 7019.0100, subp. 1]
	6.3.3		The Permittee shall submit a semiannual compliance report : Due by 31 days after end of each calendar half-year. The semiannual compliance report must contain the following: <ol style="list-style-type: none"> 1. Calendar dates covered in the reporting period; 2. Records of fuel supplier certification including the name of the fuel oil supplier, a statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR Section 60.41c, and the sulfur content or maximum sulfur content of the oil; and 3. A certified statement signed by the Permittee that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period. <p>This report may be submitted with the Semiannual Deviations Report listed elsewhere in this permit. [40 CFR 60.48c(d), 40 CFR 60.48c(e), 40 CFR 60.48c(j), Minn. R. 7011.0570]</p>

7. Appendices

Appendix A. Insignificant Activities and General Applicable Requirements

The table below lists the insignificant activities that are currently at the Facility and their associated general applicable requirements.

Minn. R.	Rule description of the activity	General applicable requirement
Minn. R. 7007.1300, subp. 3(E)(2)	<p>Nonhazardous air pollutant VOC storage tanks with total capacity not more than 10,000 gallons meeting certain vapor pressure requirements.</p> <p><i>BAE Technology Center has an above ground storage tank for diesel fuel (200 gallons) for the fire water pump diesel engine.</i></p>	Minn. R. 7011.1505, subp. 3(A)
Minn. R. 7007.1300, subp. 3(I)	<p>Individual units with potential emissions less than 2000 lb/year of certain pollutants.</p> <p><i>BAE Technology Center has two above ground storage tanks for fuel-oil (30,000 gallons each).</i></p>	Minn. R. 7011.1505, subp. 3(B)

Appendix B. Modeling Information (State Implementation Plan for SO₂)

Modeling Input Parameter Data:

The parameters shown in the tables below reflect the parameters used to demonstrate modeled compliance with ambient air quality standards as required by the Minnesota State Implementation Plan for SO₂. Flow rates and temperatures listed represent the minimum parameters at the maximum emission rate. The purpose of listing the parameters in the appendix is to provide a benchmark for future changes.

Source Name	EQUI ID	STRU ID	Stack Height (feet)	Stack Height (m)	Stack Diameter (feet)	Stack Diameter (m)	Exit Velocity (m/s)	Exit Temp (F)	Modeled and Maximum Heat Input (MMBtu/hr)	Exit Flow Rate (ACFM)
Boiler 1	4	1	140	43	7.0	2.1	3.9	325	69.8	29,466
Boiler 2	5	2	140	43	8.5	2.4	1.8	325	69.8	19,677
Boiler 3	6	2	140	43	8.5	2.4	1.8	325	35.1	19,677
Standby Generator-Sub 3(w)	2	4	36	11	0.59	0.18	58	440	2.96	3,100
Standby Generator-Sub 3(e)	3	5	36	11	0.59	0.18	58	440	2.96	3,100
Standby Generator-Sub 1	7	6	24	7.3	0.59	0.18	55	440	3.46	2,955
Standby Generator-Boiler and Bdg 37	8	7	29	8.8	0.49	0.15	48	440	2.1	1,793

*Items that are listed with a strikethrough were removed from the facility as part of Air Emission Permit 00300245-003. The values that were used in modeling are included, even though the items have been removed, to maintain a complete record.

Appendix C. Title I Conditions (SIP for SO₂) to be Removed

This appendix contains the Title I SO₂ SIP conditions that will be removed as part of Air Emissions Permit No. 03000245-003. These conditions are being removed as the emission sources that are subject to them have been removed from the Facility. As the Facility is no longer operating these sources, the Facility is in compliance with its existing Title I SO₂ SIP conditions. However, these conditions cannot be removed completely from the permit until the date the U.S. EPA approves the SIP revision to satisfy Title V requirements. The MPCA has requested that the SIP be revised to remove these sources and conditions, and the Title I SO₂ SIP conditions contained in this appendix will no longer apply as of the date the U.S. EPA approves the SIP revision.

The table below lists the sources that have been removed from the Facility and their associated to-be-removed Title I SO₂ SIP conditions.

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
EQUI 4	EU001	Boiler No. 1	
	7C.1.1		Sulfur Content of Fuel <= 0.05 percent by weight for distillate fuel oil. THIS CONDITION WILL BE TERMINATED ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
	7C.1.2		Fuel Restriction: The Permittee is authorized to combust natural gas or distillate fuel oil only. THIS CONDITION WILL BE TERMINATED ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
	7C.1.3		Fuel Supplier Certification: The Permittee shall obtain and maintain written fuel supplier certification from the fuel supplier for each shipment of distillate fuel oil delivered to the facility. Each fuel certification shall include the following information: the name of the fuel oil supplier; the sulfur content of the fuel oil; and method used to determine the sulfur content of the fuel oil. THIS CONDITION WILL BE TERMINATED ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
EQUI 5	EU002	Boiler No. 2	
	7C.2.1		Sulfur Content of Fuel <= 0.05 percent by weight for distillate fuel oil. THIS CONDITION WILL BE TERMINATED ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
	7C.2.2		<p>Fuel Restriction: The Permittee is authorized to combust natural gas or distillate fuel oil only.</p> <p>THIS CONDITION WILL BE TERMINATED ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]</p>
	7C.2.3		<p>Fuel Supplier Certification: The Permittee shall obtain and maintain written fuel supplier certification from the fuel supplier for each shipment of distillate fuel oil delivered to the facility. Each fuel certification shall include the following information: the name of the fuel oil supplier; the sulfur content of the fuel oil; and method used to determine the sulfur content of the fuel oil.</p> <p>THIS CONDITION WILL BE TERMINATED ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]</p>
EQUI 6	EU003	Boiler No. 3	
	7C.3.1		<p>Sulfur Content of Fuel <= 0.05 percent by weight for distillate fuel oil.</p> <p>THIS CONDITION WILL BE TERMINATED ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]</p>
	7C.3.2		<p>Fuel Restriction: The Permittee is authorized to combust natural gas or distillate fuel oil only.</p> <p>THIS CONDITION WILL BE TERMINATED ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]</p>
	7C.3.3		<p>Fuel Supplier Certification: The Permittee shall obtain and maintain written fuel supplier certification from the fuel supplier for each shipment of distillate fuel oil delivered to the facility. Each fuel certification shall include the following information: the name of the fuel oil supplier; the sulfur content of the fuel oil; and method used to determine the sulfur content of the fuel oil.</p> <p>THIS CONDITION WILL BE TERMINATED ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]</p>
EQUI 7	EU007	Standby Generator-Sub 1	

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
	7C.3.1		<p>Sulfur Content of Fuel <= 0.05 percent by weight for diesel fuel.</p> <p>THIS CONDITION WILL BE TERMINATED ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]</p>
	7C.3.2		<p>Fuel Restriction: The Permittee is authorized to burn diesel fuel only.</p> <p>THIS CONDITION WILL BE TERMINATED ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]</p>
	7C.3.3		<p>Fuel Supplier Certification: The Permittee shall obtain and maintain written fuel supplier certification from the fuel supplier for each shipment of diesel fuel oil delivered to the facility. Each fuel certification shall include the following information: the name of the fuel oil supplier; the sulfur content of the fuel oil and method used to determine the sulfur content of the fuel oil.</p> <p>THIS CONDITION WILL BE TERMINATED ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]</p>
EQUI 8	EU008	Standby Generator-Boiler	
	7C.3.1		<p>Sulfur Content of Fuel <= 0.05 percent by weight for diesel fuel.</p> <p>THIS CONDITION WILL BE TERMINATED ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]</p>
	7C.3.2		<p>Fuel Restriction: The Permittee is authorized to burn diesel fuel only.</p> <p>THIS CONDITION WILL BE TERMINATED ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]</p>

Subject Item	Sec.SI.Reqt	SI des:SI desc	Requirement & Citation
	7C.3.3		<p>Fuel Supplier Certification: The Permittee shall obtain and maintain written fuel supplier certification from the fuel supplier for each shipment of diesel fuel oil delivered to the facility. Each fuel certification shall include the following information: the name of the fuel oil supplier; the sulfur content of the fuel oil and method used to determine the sulfur content of the fuel oil.</p> <p>THIS CONDITION WILL BE TERMINATED ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]</p>

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 00300245-003

This technical support document (TSD) is intended for all parties interested in the permit and to meet the requirements that have been set forth by the federal and state regulations (40 CFR § 70.7(a)(5) and Minn. R. 7007.0850, subp. 1). The purpose of this document is to provide the legal and factual justification for each applicable requirement or policy decision considered in the determination to issue the permit.

1. General Information

1.1 Applicant and Stationary Source Location:

Table 1. Applicant and Source Address

Applicant/Address	Stationary Source/Address (SIC Code: 8711)
GPT Fridley Owner LLC c/o Gramercy Property Trust 521 5 th Avenue, 30 th Floor New York, NY 10175	BAE Technology Center 4800 East River Road Fridley, Minnesota 55421 Anoka County
Contact: Tom Vierling Phone: 763-571-7215	Consultant: Sara Kelley Phone: 319-730-8244

1.2 Facility Description

GPT Fridley Owner LLC (Permittee) owns and operates boilers and emergency generators in the city of Fridley, which was part of the purchase agreement, dated July 10, 2013, between ELT Minneapolis LLC and Fridley Land LLC and subsequent purchase agreement, dated July 22, 2015, between Fridley Land LLC and GPT Fridley Owner LLC. The facility was previously used for manufacturing operations and supplied heat and steam as permitted under Air Emissions Permit No. 00300020-001 (United Defense, L.P. Armament Systems Division). The facility now is an office and warehouse space which uses the boilers to provide heat for the office and warehouse workers. The emergency generators are used for stand-by power for both life-safety and communications in the event that electrical power is lost to the site.

This permit is a Joint Title I/Title V Federally Enforceable State Operating Permit, as it includes non-expiring Title I Conditions to implement the State Implementation Plan (SIP), pursuant to 40 CFR pt. 50, 40 CFR pt. 51, 40 CFR § 52.1220, Minn. R. 7007.0100, subp. 25(B), and Minn. R. 7007.1050, subp. 4.

The emissions of concern from the facility are sulfur dioxide (SO₂) and nitrogen oxides (NO_x). The emissions from the facility are below major source thresholds such that the facility is classified as a non-major source under the federal Operating Permit Program (40 CFR pt. 70) and a non-major source under federal New Source Review regulations (40 CFR § 52.21). The facility is an area source under federal National Emission Standards for Hazardous Air Pollutants (40 CFR pt. 63).

1.3 Description of the Activities Allowed by this Permit Action

This permit action is a Permit Change - Major in response to a major amendment application received on July 21, 2015. The application requested several changes:

- Relocation of an existing boiler (Boiler No. 4 - EQUI 1) and two emergency engines (EQUI 2 and EQUI 3) to new locations within the facility that were not set for demolition;
- Modification of Boiler No. 4 (EQUI 1) to allow combustion of distillate fuel oil as a backup to its current capability on natural gas;
- Addition of a 19,674 MMBtu/hr heat input boiler that is capable of combusting natural gas with fuel oil as backup (Boiler No. 5 - EQUI 9); and
- Removal of three existing boilers (EQUI 4 - EQUI 6) and two existing emergency engines (EQUI 7 and EQUI 8) from service at the facility.

As a result of the above changes, potential emissions of NO_x and SO₂ from the facility will decrease.

This permit action also incorporates a Permit Change - Minor in response to a minor amendment application received on April 28, 2015. The minor amendment application duplicates the portion of the major amendment application that requested to relocate an existing boiler (Boiler No. 4 - EQUI 1) to a new location within the facility that was not set for demolition. The application also requested to change the facility name from "River Road Industrial Center" to "BAE Technology Center" as well as identify the facility operator as DTZ. There are no emissions increases associated with this amendment.

This permit action also incorporates a Permit Change - Administrative in response to an administrative amendment application received on December 23, 2015. This application was submitted during the public notice period for this permit action to update the facility owner and operator. The previous facility ownership was Fridley Land LLC and as of July 22, 2015 the facility owner is now GPT Fridley Owner LLC. The previous facility operator was DTZ until November 23, 2015 when DTZ and Cushman Wakefield merged to a new company called Welsh Companies, LLC dba Colliers International | Minneapolis - St. Paul which is now the current facility operator.

The MPCA has a combined operating and construction permitting program under Minn. R. ch. 7007, and under Minn. R. 7007.0800. Under that authority, this permit action authorizes construction.

1.4 Description of Notifications and Applications Included in this Action

Table 2. Notifications and Applications Included in this Action

Date received	Application/Notification Type and Description
04/28/2015	Permit Change - Minor
07/21/2015	Permit Change - Major
12/31/2015	Permit Change - Administrative

1.5 Facility Emissions:

Table 3. Title I Emissions Summary

Pollutant	Unlimited Potential Emissions from the Modification (tpy)	Limited Potential Emissions from the Modification (tpy)	NSR/112(g) Threshold for New Major Source (tpy)	NSR/112(g) Review Required? (Yes/No)
PM	2.35	2.35	100	No
PM ₁₀	2.35	2.35	100	No
PM _{2.5}	2.35	2.35	100	No
NO _x	25.48	25.48	100	No
SO ₂	7.16	7.16	100	No
CO	12.17	12.17	100	No
Ozone (VOC)	1.75	1.75	100	No
Lead	0.00119	0.00119	100	No
CO ₂ e*	21,840	21,840	100,000	No

*Carbon dioxide equivalents as defined in Minn. R. 7007.0100. Greenhouse gases are not subject to regulation as defined in 40 CFR § 52.21(b)(49)(v) as this portion of the rule was vacated as a result of the June 23, 2014 decision by the United States Supreme Court.

Table 4. Total Facility Potential to Emit Summary

	PM tpy	PM ₁₀ tpy	PM _{2.5} tpy	SO ₂ tpy	NO _x tpy	CO Tpy	CO ₂ e tpy	VOC tpy	Single HAP tpy	All HAPs tpy
Total Facility Limited Potential Emissions	2.45	2.45	2.45	7.25	26.84	12.46	21,891	1.86	0.23	0.29
Total Facility Actual Emissions (2013)	0.08	0.08	0.50	0.08	8.37	6.73	*	0.47	*	

* Not reported in MN emission inventory.

Table 5. Facility Classification

Classification	Major	Synthetic Minor/Area	Minor/Area
PSD			X
Part 70 Permit Program			X
Part 63 NESHAP			X

1.6 Changes to Permit

The MPCA has a combined operating and construction permitting program under Minnesota Rules Chapter 7007, and under Minn. R. 7007.0800, the MPCA has authority to include additional requirements in a permit. Under that authority, the following changes to the permit are also made through this permit action:

- The information in the subject item inventory/details was updated, and several requirements and citations in the permit were updated to meet current MPCA policy.
- Information contained within the Tempo subject item inventory/details was updated to reflect current MPCA practices.
- The emergency fire pump engine previously identified in the insignificant activity appendix material was removed and is now identified in the permit as an emissions unit (Emergency Fire Pump - EQUI 10). The engine is subject to the requirements of 40 CFR pt. 63, subp. ZZZZ and it is standard MPCA policy to include the specific applicable requirements in the permit.

2. Regulatory and/or Statutory Basis

New Source Review (NSR)

The facility is an existing non-major source under New Source Review regulations.

The potential emissions from the modification are not subject to NSR as shown in Table 3 because the limited emissions do not constitute a major source; therefore, this permit action is not subject to NSR.

Part 70 Permit Program

The facility is a non-major source under the Part 70 permit program.

New Source Performance Standards (NSPS)

The boilers at the facility are subject to 40 CFR pt. 60, subp. Dc, Standards of Performance for Small Industrial, Commercial, and Institutional Steam Generating Units. 40 CFR pt. 60, subp. Dc applies to steam generating units that have a maximum design heat input capacity of 29 megawatts (100 MMBtu/hr) or less, but greater than or equal to 2.9 megawatts (10 MMBtu/hr), that commence construction, modification, or reconstruction after June 9, 1989.

Boiler No. 4 (EQUI 1) has a maximum heat input capacity of 10.46 MMBtu/hr and can combust natural gas and distillate fuel oil (fuel oil No. 2). Boiler No. 5 (EQUI 9) has a maximum heat input capacity of 19.67 MMBtu/hr and can combust natural gas and distillate fuel oil (fuel oil No. 2). For both boilers, distillate fuel oil is combusted only as a backup fuel. Construction commenced on these units on January 31, 1993 and July 1, 2015 respectively. As each unit was constructed after the effective date of the rule and is above the minimum design heat input capacity, 40 CFR pt. 60, subp. Dc applies to each unit.

The engines at the facility could be subject to 40 CFR pt. 60, subp. IIII: Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. 40 CFR pt. 60, subp. IIII applies to stationary compression ignition internal combustion engines that commence construction, modification, or reconstruction after July 11, 2005.

Construction of both Standby Generators Sub 3W and Sub 3E (EQUI 2 and EQUI 3) started on January 31, 1986. This project only involves the relocation of each engine to new locations within the facility that were not set for demolition and does not increase the emission rates of pollutants regulated under 40 CFR pt. 60, subp. IIII (particulate matter, sulfur dioxide, carbon monoxide, and volatile organic compounds) and therefore is not considered a modification for this subpart. Given that these engines were constructed prior to the effective date and the project does not meet the definition of a modification, 40 CFR pt. 60, subp. IIII does not apply to either engine.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

The facility has HAPs emissions below the major source thresholds and therefore is a non-major source under 40 CFR pt. 63. Thus no major source NESHAPs apply. The emission units described in this permit action could be subject to the following requirements:

- 40 CFR pt. 63, subp. ZZZZ, NESHAP for Stationary Reciprocating Internal Combustion Engines; or
- 40 CFR pt. 63, subp. JJJJJ, NESHAP for Industrial, Commercial, and Institutional Boilers; Area Sources.

40 CFR pt. 63, subp. ZZZZ applies to affected sources, as identified in 40 CFR § 63.6590, which include any existing, new, or reconstructed stationary reciprocating internal combustion engine located at a major or area source of HAP emissions.

Construction of both Standby Generators Sub 3W and Sub 3E (EQUI 2 and EQUI 3) started on January 31, 1986 which qualifies these units as existing affected sources as defined in 40 CFR § 63.6590(a)(1)(iii). However, both units qualify as commercial emergency stationary reciprocating internal combustion engines that meet the criteria in 40 CFR Section 63.6585(f)(2), so 40 CFR pt. 63, subp. ZZZZ does not apply to either unit. Each unit must meet the definition of an emergency stationary reciprocating internal combustion engine in 40 CFR Section 63.6675, which includes operating according to the provisions specified in 40 CFR Section 63.6640(f).

Regarding 40 CFR pt. 63, subp. ZZZZ, the U.S. Court of Appeals for the District of Columbia Circuit issued a decision on May 1, 2015 that vacated the provisions of 40 CFR § 63.6640(f)(2) which allow operation of an emergency generator without emission controls for up to 100 hours per year as part of an emergency demand-response program. On July 21, 2015 the court amended the May 1, 2015 decision to specify that the decision would vacate only those portions of the regulations addressed to emergency demand response [40 CFR § 63.6640(f)(2)(ii)-(iii)], and would leave in effect the provisions that allow emergency engines to operate for maintenance checks and readiness testing [40 CFR § 63.6640(f)(2)(i)]. On August 14, 2015, the court granted EPA's July 15, 2015 motion to stay issuance of the court's mandate until May 1, 2016. Therefore, all provisions of 40 CFR § 63.6640(f)(2) remain valid and in effect until revised by EPA or until May 1, 2016, whichever is earlier.

40 CFR pt. 63, subp. JJJJJ applies to each new, reconstructed or existing affected source, as identified in 40 CFR § 63.11194, that is located at an area source of HAP emissions. However, the types of boilers listed in 40 CFR § 63.11195 are not subject to 40 CFR pt. 63, subp. JJJJJ or any requirements of the subpart. One of these boiler types is a gas-fired boiler which is defined in 40 CFR Section 63.11237 as 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 periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year.

Boiler No. 4 (EQUI 1) has a maximum heat input capacity of 10.46 MMBtu/hr and can combust natural gas and distillate fuel oil (fuel oil no. 2). Boiler No. 5 (EQUI 9) has a maximum heat input capacity of 19.67 MMBtu/hr and can combust natural gas and distillate fuel oil (fuel oil no. 2). For both boilers, distillate fuel oil is combusted only as a backup fuel. As these boilers each meet the definition of a gas-fired boiler, 40 CFR pt. 63, subp. JJJJJ does not apply to either unit.

State Implementation Plan (SIP)

This permit action includes a SIP revision for GPT Fridley Owner LLC's BAE Technology Center (BAE), located in the Twin Cities Seven-County Sulfur Dioxide (SO₂) maintenance area for the three-hour, 24-hour, and annual SO₂ National Ambient Air Quality Standards (NAAQS). The BAE Technology Center was formerly known as River Road Industrial Center, owned by ELT Minneapolis, LLC, under which name it is currently listed in the SIP. BAE is subject to a joint Title I/Title V document containing SO₂ emission limits in order to ensure that the Twin Cities Seven-County area continues to maintain the SO₂ NAAQS.

The primary purpose of this SIP revision is to allow the removal of three old boilers and their replacement with a newer, smaller boiler. It will result in an overall decrease in SO₂ emissions at the BAE facility. This SIP revision is being proposed in conjunction with a major amendment to a Joint Title

I/Title V federally enforceable state operating permit (Air Emission Permit No. 00300245-003). Remodeling for this project is not required under the SIP, even though there are changes to the modeling parameters contained in Appendix B, as the modification results in an overall decrease in SO₂ emissions from the facility.

All conditions necessary for maintaining the NAAQS and included in the SIP are designated in Minnesota's permits as "Title I Condition: 40 CFR 50.4(SO₂ SIP); Title I Condition: 40 CFR 51; Title I Condition: 40 CFR pt. 52, subp. Y," making it clear that the term is part of the SIP. In SIP submittals, Minnesota requests that only those requirements with the term "Title I Condition: 40 CFR 50.4(SO₂ SIP); Title I Condition: 40 CFR 51; Title I Condition: 40 CFR pt. 52, subp. Y" be included into the SIP. Consistent with past procedures of revising the SIP when changes were made to the permit, any changes to these "Title I Condition: 40 CFR 50.4(SO₂ SIP); Title I Condition: 40 CFR 51; Title I Condition: 40 CFR pt. 52, subp. Y" conditions will require a major permit amendment and a SIP revision, with all the associated EPA review and public participation requirements. All requirements labeled "Title I Condition: 40 CFR 50.4(SO₂ SIP); Title I Condition: 40 CFR 51; Title I Condition: 40 CFR pt. 52, subp. Y" are permanent and federally enforceable.

Compliance Assurance Monitoring (CAM)

CAM does not apply to the facility because the facility is a non-major source under the Part 70 permit program.

Environmental Review & Air Emissions Risk Analysis (AERA)

The activities authorized by the draft permit do not trigger environmental review, i.e. an Environmental Assessment Worksheet (EAW), and the Permittee is not required to perform an Air Emissions Risk Analysis (AERA).

Minnesota State Rules

Portions of the facility are subject to the following Minnesota Standards of Performance:

- Minn. R. 7011.0570 Standards of Performance for Small Industrial, Commercial, and Institutional Steam Generating Units;
- Minn. R. 7011.1505 Standards of Performance for Storage Vessels
- Minn. R. 7011.2300 Standards of Performance for Stationary Internal Combustion Engines
- Minn. R. 7011.7055 Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers; Area Sources
- Minn. R. 7011.8150 Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Regulatory Overview

The table below provides an overview of the applicable regulations that apply to items affected by this permit action. All requirements for each item are included to provide a complete overview even if the applicable regulation or requirement did not change as a result of this permit action.

Table 6. Regulatory Overview of Units Affected by the Modification/Permit Amendment

Subject Item*	Applicable Regulations	Rationale
EQUI 1 (Boiler No. 4)	Title I Condition: 40 CFR § 50.4 (SO ₂ SIP)	The facility is located in the Twin Cities Seven-County SO ₂ maintenance area for the three-hour, 24-hour, and annual SO ₂ National Ambient Air Quality Standards (NAAQS). Limits set for sulfur content of fuel to comply with the NAAQS as part of Minnesota's State Implementation Plan to ensure the Twin Cities Seven-County area continues to maintain the SO ₂ NAAQS.
	40 CFR pt. 60, subp. Dc; Minn. R. 7011.0570	Standards of Performance for Small Industrial, Commercial, and Institutional Steam Generating Units. Limits set for sulfur content of distillate fuel oil.
EQUI 2 (Standby Generator - Sub 3W)	Title I Condition: 40 CFR § 50.4 (SO ₂ SIP)	The facility is located in the Twin Cities Seven-County SO ₂ maintenance area for the three-hour, 24-hour, and annual SO ₂ National Ambient Air Quality Standards (NAAQS). Limits set for sulfur content of fuel to comply with the NAAQS as part of Minnesota's State Implementation Plan to ensure the Twin Cities Seven-County area continues to maintain the SO ₂ NAAQS.
	40 CFR pt. 63, subp. ZZZZ; Minn. R. 7011.8150	National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. This unit is an existing commercial emergency engine that meets the criteria in 40 CFR § 63.6585(f)(2), so the majority of requirements in 40 CFR pt. 63, subp. ZZZZ do not apply. The engine is required to meet the definition of an emergency stationary reciprocating internal combustion engine in 40 CFR § 63.6675, which includes operating according to the provisions specified in 40 CFR § 63.6640(f).
	Minn. R. 7011.2300	Standards of Performance for Stationary Internal Combustion Engines. Limits set for opacity and SO ₂ .
EQUI 3 (Standby Generator - Sub 3E)	Title I Condition: 40 CFR § 50.4 (SO ₂ SIP)	The facility is located in the Twin Cities Seven-County SO ₂ maintenance area for the three-hour, 24-hour, and annual SO ₂ National Ambient Air Quality Standards (NAAQS). Limits set for sulfur content of fuel to comply with the NAAQS as part of Minnesota's State Implementation Plan to ensure the Twin Cities Seven-County area continues to maintain the SO ₂ NAAQS.
	40 CFR pt. 63, subp. ZZZZ; Minn. R. 7011.8150	National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. This unit is an existing commercial emergency engine that meets the criteria in 40 CFR § 63.6585(f)(2), so the majority of requirements in 40 CFR pt. 63, subp. ZZZZ do not apply. The engine is required to meet the definition of an emergency stationary reciprocating internal combustion engine in 40 CFR § 63.6675, which includes operating according to the provisions specified in 40 CFR § 63.6640(f).
	Minn. R. 7011.2300	Standards of Performance for Stationary Internal Combustion Engines. Limits set for opacity and SO ₂ .

Subject Item*	Applicable Regulations	Rationale
EQUI 9 (Boiler No. 5)	Title I Condition: 40 CFR § 50.4 (SO ₂ SIP)	The facility is located in the Twin Cities Seven-County SO ₂ maintenance area for the three-hour, 24-hour, and annual SO ₂ National Ambient Air Quality Standards (NAAQS). Limits set for sulfur content of fuel to comply with the NAAQS as part of Minnesota's State Implementation Plan to ensure the Twin Cities Seven-County area continues to maintain the SO ₂ NAAQS.
	40 CFR pt. 60, subp. Dc; Minn. R. 7011.0570	Standards of Performance for Small Industrial, Commercial, and Institutional Steam Generating Units. Limits set for sulfur content of distillate fuel oil.
EQUI 10 (Emergency Fire Pump)	40 CFR pt. 63, subp. ZZZZ; Minn. R. 7011.8150	National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. This unit is an existing commercial emergency engine that meets the criteria in 40 CFR § 63.6585(f)(2), so the majority of requirements in 40 CFR pt. 63, subp. ZZZZ do not apply. The engine is required to meet the definition of an emergency stationary reciprocating internal combustion engine in 40 CFR § 63.6675, which includes operating according to the provisions specified in 40 CFR § 63.6640(f).
	Minn. R. 7011.2300	Standards of Performance for Stationary Internal Combustion Engines. Limits set for opacity and SO ₂ .

*Location of the requirement in the permit (e.g., EQUI 1, STRU 2, etc.).

3. Technical Information

3.1 Calculations of Potential to Emit and Emissions Increase Analysis

Emissions from the facility are fuel combustion emissions from the boilers and emergency engines at the facility. Emissions from the boilers were calculated based on the maximum design heat input and emission factors from AP-42 Section 1.3 for fuel oil combustion and AP-42 Section 1.4 for natural gas combustion. For both boilers, distillate fuel oil is combusted only as a backup fuel. However, the worst-case potential to emit from each unit was calculated assuming the fuel that produced the highest emissions of each individual pollutant was combusted year round.

Emissions from the engines were calculated based on the maximum design fuel input and emission factors in AP-42 Section 3.3 for gasoline and diesel industrial engines. For both engines, hours of operation are limited to less than or equal to 500 hours/year so that each engine qualifies as an emergency generator under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators", dated September 6, 1995. The permit contains a requirement that the Permittee must maintain documentation supporting this designation to allow use of the hours of operation limit in calculating annual potential emissions.

Attachment 1 to this TSD contains detailed spreadsheets describing the PTE of the Facility and the Title I emissions increase calculations for this modification. The calculations demonstrate that this modification is not a major modification for PSD.

3.2 Monitoring

In accordance with the Clean Air Act, it is the responsibility of the owner or operator of a facility to have sufficient knowledge of the facility to certify that the facility is in compliance with all applicable requirements.

In evaluating the monitoring included in the permit, the MPCA considered the following:

- the likelihood of the facility violating the applicable requirements;
- whether add-on controls are necessary to meet the emission limits;
- the variability of emissions over time;
- the type of monitoring, process, maintenance, or control equipment data already available for the emission unit;
- the technical and economic feasibility of possible periodic monitoring methods; and
- the monitoring found on similar units elsewhere.

The table below summarizes the monitoring requirements associated with this amendment.

Table 7. Monitoring

Subject Item*	Requirement (rule basis)	Monitoring	Discussion
EQUI 1 (Boiler No. 4)	Sulfur content of distillate fuel oil \leq 0.05 wt% Fuel restricted to natural gas or distillate fuel oil (Title I SO ₂ SIP Limit)	Fuel supplier certification; Monthly fuel usage records	The Permittee is required to obtain a certification from the supplier for each distillate fuel oil shipment that specifies the sulfur content and method used to determine the sulfur content of the fuel. This requirement, in addition to the monthly fuel usage records required for this unit, provide a reasonable assurance of compliance.
	Sulfur content of distillate fuel oil \leq 0.5 wt% OR SO ₂ \leq 0.50 lb/MMBtu (40 CFR pt. 60, subp. Dc)	Fuel supplier certification; Fuel usage records	The provisions of 40 CFR pt. 60, subp. Dc requires the Permittee obtain a certification from the supplier for each distillate fuel oil shipment that specifies the sulfur content of the fuel. This requirement, in addition to the fuel usage records required for this unit, provide a reasonable assurance of compliance.
EQUI 2 (Standby Generator - Sub 3W)	Sulfur content of fuel \leq 0.05 wt% Fuel restricted to diesel fuel (Title I SO ₂ SIP Limit)	Fuel supplier certification; Monthly fuel usage records	The Permittee is required to obtain a certification from the supplier for each fuel shipment that specifies the sulfur content and method used to determine the sulfur content of the fuel. This requirement, in addition to the monthly fuel usage records required for this unit, provide a reasonable assurance of compliance.

Subject Item*	Requirement (rule basis)	Monitoring	Discussion
	Operating provisions (40 CFR pt. 63, subp. ZZZZ)	Non- resettable hour meter; Recordkeeping of operating hours	This unit is required to meet the definition of an emergency stationary reciprocating internal combustion engine in 40 CFR § 63.6675 and operate according to the provisions specified in 40 CFR § 63.6640(f). The provisions of 40 CFR pt. 63, subp. ZZZZ require the installation of a non-resettable hour meter and recordkeeping of the hours of operation, including how many hours are spent for emergency versus non-emergency operation. The monitoring and recordkeeping required by 40 CFR pt. 63, subp. ZZZZ provide a reasonable assurance of compliance.
	Opacity: ≤ 20% SO ₂ ≤ 0.50 lb/MMBtu (Minn. R. 7011.2300)	Fuel supplier certification	The Permittee is required to obtain a certification from the supplier for each fuel shipment that specifies the sulfur content and method used to determine the sulfur content of the fuel. In addition, the Permittee can demonstrate that this unit will continue to operate such that emissions are well below the emission limits by only burning diesel fuel oil with sulfur content less than or equal to 0.05 percent by weight. These requirements provide a reasonable assurance of compliance.
EQUI 3 (Standby Generator - Sub 3E)	Sulfur content of fuel ≤ 0.05 wt% Fuel restricted to diesel fuel (Title I SO ₂ SIP Limit)	Fuel supplier certification; Monthly fuel usage records	The Permittee is required to obtain a certification from the supplier for each fuel shipment that specifies the sulfur content and method used to determine the sulfur content of the fuel. This requirement, in addition to the monthly fuel usage records required for this unit, provide a reasonable assurance of compliance.
	Operating provisions (40 CFR pt. 63, subp. ZZZZ)	Non- resettable hour meter; Recordkeeping of operating hours	This unit is required to meet the definition of an emergency stationary reciprocating internal combustion engine in 40 CFR § 63.6675 and operate according to the provisions specified in 40 CFR § 63.6640(f). The provisions of 40 CFR pt. 63, subp. ZZZZ require the installation of a non-resettable hour meter and recordkeeping of the hours of operation, including how many hours are spent for emergency versus non-emergency operation. The monitoring and recordkeeping required by 40 CFR pt. 63, subp. ZZZZ provide a reasonable assurance of compliance.
	Opacity: ≤ 20% SO ₂ ≤ 0.50 lb/MMBtu (Minn. R. 7011.2300)	Fuel supplier certification	The Permittee is required to obtain a certification from the supplier for each fuel shipment that specifies the sulfur content and method used to determine the sulfur content of the fuel. In addition, the Permittee can demonstrate that this unit will continue to operate such that emissions are well below the emission limits by only burning diesel fuel oil with sulfur content less than or equal to 0.05 percent by weight. These requirements provide a reasonable assurance of compliance.

Subject Item*	Requirement (rule basis)	Monitoring	Discussion
EQUI 9 (Boiler No. 5)	Sulfur content of distillate fuel oil \leq 0.05 wt% Fuel restricted to natural gas or distillate fuel oil (Title I SO ₂ SIP Limit)	Fuel supplier certification; Monthly fuel usage records	The Permittee is required to obtain a certification from the supplier for each distillate fuel oil shipment that specifies the sulfur content and method used to determine the sulfur content of the fuel. This requirement, in addition to the monthly fuel usage records required for this unit, provide a reasonable assurance of compliance.
	Sulfur content of distillate fuel oil \leq 0.5 wt% OR SO ₂ \leq 0.50 lb/MMBtu (40 CFR pt. 60, subp. Dc)	Fuel supplier certification; Fuel usage records	The provisions of 40 CFR pt. 60, subp. Dc requires the Permittee obtain a certification from the supplier for each distillate fuel oil shipment that specifies the sulfur content of the fuel. This requirement, in addition to the fuel usage records required for this unit, provide a reasonable assurance of compliance.
EQUI 10 (Emergency Fire Pump)	Operating provisions (40 CFR pt. 63, subp. ZZZZ)	Non-resettable hour meter; Recordkeeping of operating hours	This unit is required to meet the definition of an emergency stationary reciprocating internal combustion engine in 40 CFR § 63.6675 and operate according to the provisions specified in 40 CFR § 63.6640(f). The provisions of 40 CFR pt. 63, subp. ZZZZ require the installation of a non-resettable hour meter and recordkeeping of the hours of operation, including how many hours are spent for emergency versus non-emergency operation. The monitoring and recordkeeping required by 40 CFR pt. 63, subp. ZZZZ provide a reasonable assurance of compliance.
	Opacity: \leq 20% SO ₂ \leq 0.50 lb/MMBtu (Minn. R. 7011.2300)	None	The Permittee can demonstrate that this unit will continue to operate such that emissions are well below the emission limits by only burning diesel fuel oil with sulfur content less than or equal to 15ppm per gallon.

*Location of the requirement in the permit (e.g., EQUI 1, STRU 2, etc.).

3.3 Insignificant Activities

BAE Technology Center has several operations which are classified as insignificant activities under the MPCA's permitting rules. These are listed in Appendix A to the permit. The permit is required to include periodic monitoring for all emissions units, including insignificant activities, per EPA guidance. The insignificant activities at this Facility are only subject to general applicable requirements. Using the criteria outlined earlier in this TSD, the following table documents the justification why no additional periodic monitoring is necessary for the current insignificant. None of these activities changed with this permit action.

Table 8. Insignificant Activities

Insignificant Activity	General Applicable Emission limit	Discussion
Non-hazardous air pollutant VOC storage tanks with a combined total tankage capacity of not more than 10,000 gallons of non-hazardous air pollutant VOCs and with a vapor pressure of not more than 1.0 psia at 60 degrees Fahrenheit.	No applicable limit. (Minn. R. 7011.1505)	BAE Technology Center has an above ground storage tank for diesel fuel (200 gallons) for the fire water pump diesel engine. For this storage tank, there are no standards of performance prescribed by Minnesota Rules for storage tanks with a storage capacity of 2,000 gallons or less. [Minn. R. 7007.1300, subp. (3)(E)(2)]
Individual units with potential emissions less than 2000 lb/year of certain pollutants	No applicable limit, design requirements only. (Minn. R. 7011.1505)	BAE Technology Center has two above ground storage tanks for fuel-oil (30,000 gallons each). For these storage tanks, there is no emission limitation prescribed by Minnesota Rules, only design requirements. [Minn. R. 7007.1300, subp. (3)(I)]

3.4 Permit Organization

In general, the permit meets the MPCA Tempo Guidance for ordering and grouping of requirements. One area where this permit deviates slightly from Tempo guidance is in the use of appendices. While appendices are fully enforceable parts of the permit, in general, any requirement that the MPCA thinks should be electronically tracked (e.g., limits, submittals, etc.), should be in the Requirements table in Tempo. The main reason is that the appendices are word processing sections and are not part of the electronic tracking system. Violation of the appendices can be enforced, but the computer system will not automatically generate the necessary enforcement notices or documents. Staff must generate these.

Appendix A contains a listing of the facility's insignificant activities and their applicable requirements.

Appendix B contains the modeling input parameters used to demonstrate modeled compliance with ambient air quality standards as required by the Minnesota State Implementation Plan for SO₂.

3.5 Comments Received

Public Notice Period: November 28, 2015 - December 28, 2015

EPA 45-day Review Period: November 28, 2015 - January 12, 2016

One comment was received during the public notice period from the facility. The comment submitted included the administrative amendment application, described earlier within this document, to identify a facility ownership and operator change. The comment submitted did not include adverse comments on any applicable requirements of the permit.

As a result of the comment and application submittal, the only change made to the permit was identification of the new facility owner and operator. The public notice period was not required to be

restarted as administrative amendments do not require a public notice period in accordance with Minn. R. 7007.1400, subp. 3.

Comments were not received from the EPA during their review period.

4. Permit Fee Assessment

Attachment 3 to this TSD contains the MPCA's assessment of Application and Additional Points used to determine the permit application fee for this permit action as required by Minn. R. 7002.0019. The permit action includes two permit applications, both received after the effective date of the rule (July 1, 2009). The action includes the incorporation of a NSPS for each boiler and a NESHAP for each emergency engine, however the NESHAP was an existing standard that applied to the facility and is not a chargeable activity (i.e., the standard was not triggered by the changes requested in the permit applications – it falls under a permit reopening but is being rolled into this permit action).

5. Conclusion

Based on the information provided by GPT Fridley Owner LLC, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 00300245-003 and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Hassan Bouchareb (permit engineer)
Amanda Smith (state implementation plan)
Brent Rohne (enforcement)
Marc Severin (compliance)
Marshall Cole (peer reviewer)
Beckie Olson (permit writing assistant)
Laurie O'Brien (administrative support)

TEMPO360 Activities: Permit Change - Major, Permit Change – Minor, Permit Change - Administrative

Attachments: 1. PTE Summary and Emissions Increase Calculation Spreadsheets
2. Requirements Development Report
3. Points Calculator

ATTACHMENT 1
PTE SUMMARY AND EMISSIONS INCREASE CALCULATION SPREADSHEETS
(Available Electronically in Tempo Central File)

Boiler #1 EQUI 4

Unit	Natural Gas				Fuel Oil			
	Capacity	69.3	MMBtu/hr		Capacity	69.3	MMBtu/hr	
Throughput		0.0679	mmcf/hr			0.502	1000 gallons/hr	
Hours of Operation		8760	hrs/yr			8760	hrs/yr	
Pollutant	Emission				Emission			
	Factor	Emission Rate			Factor	Emission Rate		
	lb/mmcf	lbs/hour	TPY	EF Basis	lb/1000 gal	lbs/hour	TPY	EF Basis
Particulate Matter	7.6	0.516	2.262	AP42	2	1.004	4.399	AP42
Particulate Matter <10 microns	7.6	0.516	2.262	AP42	2	1.004	4.399	AP42
Particulate Matter <2.5 microns	7.6	0.516	2.262	AP42	2	1.004	4.399	AP42
Sulfur Dioxide	0.6	0.041	0.179	AP42	7.1	3.565	15.617	AP42
Nitrogen Oxides	50	3.397	14.879	AP42	20	10.043	43.990	AP42
Carbon Monoxide	84	5.707	24.997	AP42	5	2.511	10.998	AP42
Volatile Organic Compounds	5.5	0.374	1.637	AP42	1.3	0.653	2.859	AP42
Benzene	2.10E-03	1.43E-04	6.25E-04	AP42	2.14E-04	1.07E-04	4.71E-04	AP42
Lead	5.00E-04	3.40E-05	1.49E-04	AP42	9.00E-06	6.24E-04	2.73E-03	AP42
Mercury	2.60E-04	1.77E-05	7.74E-05	AP42	3.00E-06	2.08E-04	9.11E-04	AP42
Arsenic	2.00E-04	1.36E-05	5.95E-05	AP42	4.00E-06	2.77E-04	1.21E-03	AP42
Beryllium	1.20E-05	8.15E-07	3.57E-06	AP42	3.00E-06	2.08E-04	9.11E-04	AP42
Cadmium	1.10E-03	7.47E-05	3.27E-04	AP42	3.00E-06	2.08E-04	9.11E-04	AP42
Chromium	1.40E-03	9.51E-05	4.17E-04	AP42	3.00E-06	2.08E-04	9.11E-04	AP42
Beryllium	8.40E-05	5.71E-06	2.50E-05	AP42				AP42
Formaldehyde	7.50E-02	5.10E-03	2.23E-02	AP42	3.30E-02	1.66E-02	7.26E-02	AP42
Hexane	1.80E+00	1.22E-01	5.36E-01	AP42				AP42
Manganese	3.80E-04	2.58E-05	1.13E-04	AP42	6.00E-06	4.16E-04	1.82E-03	AP42
Naphthalene	6.10E-04	4.14E-05	1.82E-04	AP42				AP42
Nickel	2.10E-03	1.43E-04	6.25E-04	AP42	3.00E-06	2.08E-04	9.11E-04	AP42
Selenium	2.40E-05	1.63E-06	7.14E-06	AP42	1.50E-05	1.04E-03	4.55E-03	AP42
Toluene	3.40E-03	2.31E-04	1.01E-03	AP42	6.20E-03	3.11E-03	1.36E-02	AP42
Polycyclic Organic Matter (POM)					3.30E-03	1.66E-03	7.26E-03	AP42
2-Methylnaphthalene	2.40E-05	1.63E-06	7.14E-06	AP42				AP42
3-Methylchloranthrene	1.80E-06	1.22E-07	5.36E-07	AP42				AP42
7,12-Dimethylbenz(a)anthracene	1.60E-05	1.09E-06	4.76E-06	AP42				AP42
Acenaphthene	1.80E-06	1.22E-07	5.36E-07	AP42	2.11E-05	1.06E-05	4.64E-05	AP42
Acenaphthylene	1.80E-06	1.22E-07	5.36E-07	AP42	2.53E-07	1.27E-07	5.56E-07	AP42
Anthracene	2.40E-06	1.63E-07	7.14E-07	AP42	1.22E-06	6.13E-07	2.68E-06	AP42
Benzo(a)anthracene	1.80E-06	1.22E-07	5.36E-07	AP42	4.01E-06	2.01E-06	8.82E-06	AP42
Benzo(a)pyrene	1.20E-06	8.15E-08	3.57E-07	AP42				AP42
Benzo(b,j,k)fluoranthene	1.80E-06	1.22E-07	5.36E-07	AP42	1.48E-06	7.43E-07	3.26E-06	AP42
Benzo(g,h,i)perylene	1.20E-06	8.15E-08	3.57E-07	AP42	2.26E-06	1.13E-06	4.97E-06	AP42
Chrysene	1.80E-06	1.22E-07	5.36E-07	AP42	2.38E-06	1.20E-06	5.23E-06	AP42
Dibenzo(a,h)anthracene	1.20E-06	8.15E-08	3.57E-07	AP42	1.67E-06	8.39E-07	3.67E-06	AP42
Dichlorobenzene	1.20E-03	8.15E-05	3.57E-04	AP42				AP42
Fluoranthene	3.00E-06	2.04E-07	8.93E-07	AP42	4.84E-06	2.43E-06	1.06E-05	AP42
Fluorene	2.80E-06	1.90E-07	8.33E-07	AP42	4.47E-06	2.24E-06	9.83E-06	AP42
Indeno(1,2,3-cd)pyrene	1.80E-06	1.22E-07	5.36E-07	AP42	2.14E-06	1.07E-06	4.71E-06	AP42
Phenanthrene	1.70E-05	1.16E-06	5.06E-06	AP42	1.05E-05	5.27E-06	2.31E-05	AP42
Pyrene	5.00E-06	3.40E-07	1.49E-06	AP42	4.25E-06	2.13E-06	9.35E-06	AP42
Greenhouse Gases	Greenhouse Gases				Greenhouse Gases			
CO2	116.9973	8,108	35,513	40 CFR 98	163.0818	11,302	49,501	40 CFR 98
CH4	0.002205	0.1528	0.6693	40 CFR 98	0.006615	0.4584	2.0079	40 CFR 98
N2O	0.002205	0.0153	0.0669	40 CFR 98	0.001323	0.0917	0.4016	40 CFR 98
CO2e	117.1181	8,116	35,549	40 CFR 98	163.6414	11,340	49,671	40 CFR 98

Boiler #2 - EQUI 5

Unit	Natural Gas				Fuel Oil			
	Capacity	69.3	MMBtu/hr		Capacity	69.3	MMBtu/hr	
Throughput		0.0679	mmcf/hr			0.495	1000 gallons/hr	
Hours of Operation		8760	hrs/yr			8760	hrs/yr	
Pollutant	Emission				Emission			
	Factor	Emission Rate			Factor	Emission Rate		
	lb/mmcf	lbs/hour	TPY	EF Basis	lb/1000 gal	lbs/hour	TPY	EF Basis
Particulate Matter	7.6	0.516	2.262	AP42	2	0.990	4.336	AP42
Particulate Matter <10 microns	7.6	0.516	2.262	AP42	2	0.990	4.336	AP42
Particulate Matter <2.5 microns	7.6	0.516	2.262	AP42	2	0.990	4.336	AP42
Sulfur Dioxide	0.6	0.041	0.179	AP42	7.1	3.515	15.394	AP42
Nitrogen Oxides	50	3.397	14.879	AP42	20	9.900	43.362	AP42
Carbon Monoxide	84	5.707	24.997	AP42	5	2.475	10.841	AP42
Volatile Organic Compounds	5.5	0.374	1.637	AP42	1.3	0.644	2.819	AP42
Benzene	2.10E-03	1.43E-04	6.25E-04	AP42	2.14E-04	1.06E-04	4.64E-04	AP42
Lead	5.00E-04	3.40E-05	1.49E-04	AP42	9.00E-06	6.24E-04	2.73E-03	AP42
Mercury	2.80E-04	1.77E-05	7.74E-05	AP42	3.00E-06	2.08E-04	9.11E-04	AP42
Arsenic	2.00E-04	1.36E-05	5.95E-05	AP42	4.00E-06	2.77E-04	1.21E-03	AP42
Beryllium	1.20E-05	8.15E-07	3.57E-06	AP42	3.00E-06	2.08E-04	9.11E-04	AP42
Cadmium	1.10E-03	7.47E-05	3.27E-04	AP42	3.00E-06	2.08E-04	9.11E-04	AP42
Chromium	1.40E-03	9.51E-05	4.17E-04	AP42	3.00E-06	2.08E-04	9.11E-04	AP42
Beryllium	8.40E-05	5.71E-06	2.50E-05	AP42				AP42
Formaldehyde	7.50E-02	5.10E-03	2.23E-02	AP42	3.30E-02	1.63E-02	7.15E-02	AP42
Hexane	1.80E+00	1.22E-01	5.36E-01	AP42				AP42
Manganese	3.80E-04	2.58E-05	1.13E-04	AP42	6.00E-06	4.16E-04	1.82E-03	AP42
Naphthalene	6.10E-04	4.14E-05	1.82E-04	AP42				AP42
Nickel	2.10E-03	1.43E-04	6.25E-04	AP42	3.00E-06	2.08E-04	9.11E-04	AP42
Selenium	2.40E-05	1.63E-06	7.14E-06	AP42	1.50E-05	1.04E-03	4.55E-03	AP42
Toluene	3.40E-03	2.31E-04	1.01E-03	AP42	6.20E-03	3.07E-03	1.34E-02	AP42
Polycyclic Organic Matter (POM)					3.30E-03	1.63E-03	7.15E-03	AP42
2-Methylnaphthalene	2.40E-05	1.63E-06	7.14E-06	AP42				AP42
3-Methylchloranthrene	1.80E-06	1.22E-07	5.36E-07	AP42				AP42
7,12-Dimethylbenz(a)anthracene	1.60E-05	1.09E-06	4.76E-06	AP42				AP42
Acenaphthene	1.80E-06	1.22E-07	5.36E-07	AP42	2.11E-05	1.04E-05	4.57E-05	AP42
Acenaphthylene	1.80E-06	1.22E-07	5.36E-07	AP42	2.53E-07	1.25E-07	5.49E-07	AP42
Anthracene	2.40E-06	1.63E-07	7.14E-07	AP42	1.22E-06	6.04E-07	2.65E-06	AP42
Benzo(a)anthracene	1.80E-06	1.22E-07	5.36E-07	AP42	4.01E-06	1.98E-06	8.69E-06	AP42
Benzo(a)pyrene	1.20E-06	8.15E-08	3.57E-07	AP42				AP42
Benzo(b,j,k)fluoranthene	1.80E-06	1.22E-07	5.36E-07	AP42	1.48E-06	7.33E-07	3.21E-06	AP42
Benzo(g,h,i)perylene	1.20E-06	8.15E-08	3.57E-07	AP42	2.26E-06	1.12E-06	4.90E-06	AP42
Chrysene	1.80E-06	1.22E-07	5.36E-07	AP42	2.38E-06	1.18E-06	5.16E-06	AP42
Dibenzo(a,h)anthracene	1.20E-06	8.15E-08	3.57E-07	AP42	1.67E-06	8.27E-07	3.62E-06	AP42
Dichlorobenzene	1.20E-03	8.15E-05	3.57E-04	AP42				AP42
Fluoranthene	3.00E-06	2.04E-07	8.93E-07	AP42	4.84E-06	2.40E-06	1.05E-05	AP42
Fluorene	2.80E-06	1.90E-07	8.33E-07	AP42	4.47E-06	2.21E-06	9.69E-06	AP42
Indeno(1,2,3-cd)pyrene	1.80E-06	1.22E-07	5.36E-07	AP42	2.14E-06	1.06E-06	4.64E-06	AP42
Phenanthrene	1.70E-05	1.16E-06	5.06E-06	AP42	1.05E-05	5.20E-06	2.28E-05	AP42
Pyrene	5.00E-06	3.40E-07	1.49E-06	AP42	4.25E-06	2.10E-06	9.21E-06	AP42
Greenhouse Gases	Greenhouse Gases				Greenhouse Gases			
CO2	116.9973	8.108	35,513	40 CFR 98	163.0818	11,302	49,501	40 CFR 98
CH4	0.002205	0.1528	0.6693	40 CFR 98	0.006615	0.4584	2,0079	40 CFR 98
N2O	0.0002205	0.0153	0.0669	40 CFR 98	0.001323	0.0917	0.4016	40 CFR 98
CO2e	117.1181	8.116	35,549	40 CFR 98	163.6414	11,340	49,671	40 CFR 98

Boiler #3 - EQUI 6

Unit	Natural Gas				Fuel Oil			
	Capacity	35.1	MMBtu/hr		Capacity	35.1	MMBtu/hr	
Throughput		0.0344	mmcf/hr			0.251	1000 gallons/hr	
Hours of Operation		8760	hrs/yr			8760	hrs/yr	
Pollutant	Emission				Emission			
	Factor	Emission Rate			Factor	Emission Rate		
	lb/mmcf	lbs/hour	TPY	EF Basis	lb/1000 gal	lbs/hour	TPY	EF Basis
Particulate Matter	7.6	0.262	1.145	AP42	2	0.501	2.196	AP42
Particulate Matter <10 microns	7.6	0.516	2.262	AP42	2	0.501	2.196	AP42
Particulate Matter <2.5 microns	7.6	0.262	1.145	AP42	2	0.501	2.196	AP42
Sulfur Dioxide	0.6	0.021	0.090	AP42	7.1	1.780	7.797	AP42
Nitrogen Oxides	50	1.721	7.536	AP42	20	5.014	21.963	AP42
Carbon Monoxide	84	2.891	12.661	AP42	5	1.254	5.491	AP42
Volatile Organic Compounds	5.5	0.189	0.829	AP42	1.3	0.326	1.428	AP42
Benzene	2.10E-03	7.23E-05	3.17E-04	AP42	2.14E-04	5.37E-05	2.35E-04	AP42
Lead	5.00E-04	3.40E-05	1.49E-04	AP42	9.00E-06	3.16E-04	1.38E-03	AP42
Mercury	2.80E-04	8.95E-06	3.92E-05	AP42	3.00E-06	1.05E-04	4.61E-04	AP42
Arsenic	2.00E-04	6.88E-06	3.01E-05	AP42	4.00E-06	1.40E-04	6.15E-04	AP42
Beryllium	1.20E-05	4.13E-07	1.81E-06	AP42	3.00E-06	1.05E-04	4.61E-04	AP42
Cadmium	1.10E-03	3.79E-05	1.66E-04	AP42	3.00E-06	1.05E-04	4.61E-04	AP42
Chromium	1.40E-03	4.82E-05	2.11E-04	AP42	3.00E-06	1.05E-04	4.61E-04	AP42
Beryllium	8.40E-05	2.89E-06	1.27E-05	AP42				
Formaldehyde	7.50E-02	2.58E-03	1.13E-02	AP42	3.30E-02	8.27E-03	3.62E-02	AP42
Hexane	1.80E+00	6.19E-02	2.71E-01	AP42				AP42
Manganese	3.80E-04	1.31E-05	5.73E-05	AP42	6.00E-06	2.11E-04	9.22E-04	AP42
Naphthalene	6.10E-04	2.10E-05	9.19E-05	AP42				AP42
Nickel	2.10E-03	7.23E-05	3.17E-04	AP42	3.00E-06	1.05E-04	4.61E-04	AP42
Selenium	2.40E-05	8.26E-07	3.62E-06	AP42	1.50E-05	5.27E-04	2.31E-03	AP42
Toluene	3.40E-03	1.17E-04	5.12E-04	AP42	6.20E-03	1.55E-03	6.81E-03	AP42
Polycyclic Organic Matter (POM)					3.30E-03	8.27E-04	3.62E-03	AP42
2-Methylnaphthalene	2.40E-05	8.26E-07	3.62E-06	AP42				AP42
3-Methylchloranthrene	1.80E-06	6.19E-08	2.71E-07	AP42				AP42
7,12-Dimethylbenz(a)anthracene	1.60E-05	5.51E-07	2.41E-06	AP42				AP42
Acenaphthene	1.80E-06	6.19E-08	2.71E-07	AP42	2.11E-05	5.29E-06	2.32E-05	AP42
Acenaphthylene	1.80E-06	6.19E-08	2.71E-07	AP42	2.53E-07	6.34E-08	2.78E-07	AP42
Anthracene	2.40E-06	8.26E-08	3.62E-07	AP42	1.22E-06	3.06E-07	1.34E-06	AP42
Benzo(a)anthracene	1.80E-06	6.19E-08	2.71E-07	AP42	4.01E-06	1.01E-06	4.40E-06	AP42
Benzo(a)pyrene	1.20E-06	4.13E-08	1.81E-07	AP42				AP42
Benzo(b,j,k)fluoranthene	1.80E-06	6.19E-08	2.71E-07	AP42	1.48E-06	3.71E-07	1.63E-06	AP42
Benzo(g,h,i)perylene	1.20E-06	4.13E-08	1.81E-07	AP42	2.26E-06	5.67E-07	2.48E-06	AP42
Chrysene	1.80E-06	6.19E-08	2.71E-07	AP42	2.38E-06	5.97E-07	2.61E-06	AP42
Dibenzo(a,h)anthracene	1.20E-06	4.13E-08	1.81E-07	AP42	1.67E-06	4.19E-07	1.83E-06	AP42
Dichlorobenzene	1.20E-03	4.13E-05	1.81E-04	AP42				AP42
Fluoranthene	3.00E-06	1.03E-07	4.52E-07	AP42	4.84E-06	1.21E-06	5.31E-06	AP42
Fluorene	2.80E-06	9.64E-08	4.22E-07	AP42	4.47E-06	1.12E-06	4.91E-06	AP42
Indeno(1,2,3-cd)pyrene	1.80E-06	6.19E-08	2.71E-07	AP42	2.14E-06	5.37E-07	2.35E-06	AP42
Phenanthrene	1.70E-05	5.85E-07	2.56E-06	AP42	1.05E-05	2.63E-06	1.15E-05	AP42
Pyrene	5.00E-06	1.72E-07	7.54E-07	AP42	4.25E-06	1.07E-06	4.67E-06	AP42
Greenhouse Gases	Greenhouse Gases				Greenhouse Gases			
CO2	116.9973	4.107	17,987	40 CFR 98	163.0818	5,724	25,072	40 CFR 98
CH4	0.002205	0.0774	0.3390	40 CFR 98	0.006615	0.2322	1.0170	40 CFR 98
N2O	0.0002205	0.0077	0.0339	40 CFR 98	0.001323	0.0464	0.2034	40 CFR 98
CO2e	117.1181	4.111	18,006	40 CFR 98	163.6414	5,744	25,158	40 CFR 98

Boiler #4 - EQUI 1					
Unit	Natural Gas				TOTAL
Capacity		10.46	MMBtu/hr		ALL
Throughput		0.0100	mmcf/hr		BOILERS
Hours of Operation		8760	hrs/yr		SUMMARY
Pollutant	Emission Factor	Emission Rate		EF Basis	PTE
	lb/mmcf	lbs/hour	TPY		TPY
Particulate Matter	7.6	0.076	0.332	AP42	11.263
Particulate Matter <10 microns	7.6	0.076	0.332	AP42	11.263
Particulate Matter <2.5 microns	7.6	0.076	0.332	AP42	11.263
Sulfur Dioxide	0.6	0.006	0.026	AP42	38.833
Nitrogen Oxides	50	0.498	2.182	AP42	111.497
Carbon Monoxide	84	0.837	3.665	AP42	66.320
Volatile Organic Compounds	5.5	0.055	0.240	AP42	7.345
Benzene	2.10E-03	2.09E-05	9.16E-05	AP42	1.26E-03
Lead	5.00E-04	4.98E-06	2.18E-05	AP42	6.87E-03
Mercury	2.60E-04	2.59E-06	1.13E-05	AP42	2.29E-03
Arsenic	2.00E-04	1.99E-06	8.73E-06	AP42	3.05E-03
Beryllium	1.20E-05	1.20E-07	5.24E-07	AP42	2.28E-03
Cadmium	1.10E-03	1.10E-05	4.80E-05	AP42	2.33E-03
Chromium	1.40E-03	1.39E-05	6.11E-05	AP42	2.34E-03
Beryllium	8.40E-05	8.37E-07	3.67E-06	AP42	3.67E-06
Formaldehyde	7.50E-02	7.47E-04	3.27E-03	AP42	1.84E-01
Hexane	1.80E+00	1.79E-02	7.85E-02	AP42	1.42
Manganese	3.80E-04	3.79E-06	1.66E-05	AP42	4.58E-03
Naphthalene	6.10E-04	6.08E-06	2.66E-05	AP42	2.66E-05
Nickel	2.10E-03	2.09E-05	9.16E-05	AP42	2.37E-03
Selenium	2.40E-05	2.39E-07	1.05E-06	AP42	1.14E-02
Toluene	3.40E-03	3.39E-05	1.48E-04	AP42	3.40E-02
Polycyclic Organic Matter (POM)					1.80E-02
2-Methylnaphthalene	2.40E-05	2.39E-07	1.05E-06	AP42	1.05E-06
3-Methylchloranthrene	1.80E-06	1.79E-08	7.85E-08	AP42	7.85E-08
7,12-Dimethylbenz(a)anthracene	1.60E-05	1.59E-07	6.98E-07	AP42	6.98E-07
Acenaphthene	1.80E-06	1.79E-08	7.85E-08	AP42	1.15E-04
Acenaphthylene	1.80E-06	1.79E-08	7.85E-08	AP42	1.46E-06
Anthracene	2.40E-06	2.39E-08	1.05E-07	AP42	6.77E-06
Benzo(a)anthracene	1.80E-06	1.79E-08	7.85E-08	AP42	2.20E-05
Benzo(a)pyrene	1.20E-06	1.20E-08	5.24E-08	AP42	5.24E-08
Benzo(b,j,k)fluoranthene	1.80E-06	1.79E-08	7.85E-08	AP42	8.17E-06
Benzo(g,h,i)perylene	1.20E-06	1.20E-08	5.24E-08	AP42	1.24E-05
Chrysene	1.80E-06	1.79E-08	7.85E-08	AP42	1.31E-05
Dibenzo(a,h)anthracene	1.20E-06	1.20E-08	5.24E-08	AP42	9.18E-06
Dichlorobenzene	1.20E-03	1.20E-05	5.24E-05	AP42	5.24E-05
Fluoranthene	3.00E-06	2.99E-08	1.31E-07	AP42	2.66E-05
Fluorene	2.80E-06	2.79E-08	1.22E-07	AP42	2.46E-05
Indeno(1,2,3-cd)pyrene	1.80E-06	1.79E-08	7.85E-08	AP42	1.18E-05
Phenanthrene	1.70E-05	1.69E-07	7.42E-07	AP42	5.81E-05
Pyrene	5.00E-06	4.98E-08	2.18E-07	AP42	2.34E-05
					1.70
Greenhouse Gases	Greenhouse Gases				
CO2	116.9973	1,224	5,360	40 CFR 98	129,434
CH4	0.002205	0.0231	0.1010	40 CFR 98	5.134
N2O	0.0002205	0.0023	0.0101	40 CFR 98	1.017
CO2e	117.1181	1,225	5,366	40 CFR 98	129,865

	EQUI 2			EQUI 3			EQUI 7			EQUI 8			Emergency	
	Fuel Oil - Emergency Engine			Fuel Oil - Emergency Engine			Fuel Oil - Emergency Engine			Fuel Oil - Emergency Engine				Emergency Engine Summary PTE TPY
	2.96	MMBtu/hr		2.96	MMBtu/hr		3.46	MMBtu/hr		2.1	MMBtu/hr			
		kW			kW			kW			kW			
		1000 gallons/hr			1000 gallons/hr			1000 gallons/hr			1000 gallons/hr			
	500	hrs/yr		500	hrs/yr		500	hrs/yr		500	hrs/yr			
	Emission Factor	Emission Rate		Emission Factor	Emission Rate		Emission Factor	Emission Rate		Emission Factor	Emission Rate			
lb/MMBtu	lbs/hour	TPY	lb/MMBtu	lbs/hour	TPY	lb/MMBtu	lbs/hour	TPY	lb/MMBtu	lbs/hour	TPY			
Particulate Matter	0.31	0.918	0.229	0.31	0.918	0.229	0.31	1.073	0.268	0.31	0.651	0.163	0.890	
Particulate Matter <10 microns	0.31	0.918	0.229	0.31	0.918	0.229	0.31	1.073	0.268	0.31	0.651	0.163	0.890	
Particulate Matter <2.5 microns	0.31	0.918	0.229	0.31	0.918	0.229	0.31	1.073	0.268	0.31	0.651	0.163	0.890	
Sulfur Dioxide	0.29	0.858	0.215	0.29	0.858	0.215	0.29	1.003	0.251	0.29	0.609	0.152	0.832	
Nitrogen Oxides	4.41	13.054	3.263	4.41	13.054	3.263	4.41	15.259	3.815	4.41	9.261	2.315	12.657	
Carbon Monoxide	0.95	2.812	0.703	0.95	2.812	0.703	0.95	3.287	0.822	0.95	1.995	0.499	2.727	
Volatile Organic Compounds	0.35	1.036	0.259	0.35	1.036	0.259	0.35	1.211	0.303	0.35	0.735	0.184	1.005	
Benzene	9.33E-04	2.76E-03	6.9E-04	9.33E-04	2.76E-03	6.90E-04	9.33E-04	2.76E-03	6.90E-04	9.33E-04	2.76E-03	6.90E-04	2.76E-03	
1,3-Butadiene	3.91E-05	1.16E-04	2.9E-05	3.91E-05	1.16E-04	2.89E-05	3.91E-05	1.16E-04	2.89E-05	3.91E-05	1.16E-04	2.89E-05	1.16E-04	
Acetaldehyde	7.67E-04	2.27E-03	5.7E-04	7.67E-04	2.27E-03	5.68E-04	7.67E-04	2.27E-03	5.68E-04	7.67E-04	2.27E-03	5.68E-04	2.27E-03	
Acrolein	9.25E-05	2.74E-04	6.8E-05	9.25E-05	2.74E-04	6.85E-05	9.25E-05	2.74E-04	6.85E-05	9.25E-05	2.74E-04	6.85E-05	2.74E-04	
Arsenic														
Beryllium														
Cadmium														
Chromium														
Cobalt														
Formaldehyde	1.18E-03	3.49E-03	8.7E-04	1.18E-03	3.49E-03	8.73E-04	1.18E-03	3.49E-03	8.73E-04	1.18E-03	3.49E-03	8.73E-04	3.49E-03	
Hexane														
Lead														
Manganese														
Mercury														
Nickel														
Selenium														
Toluene	4.09E-04	1.21E-03	3.0E-04	4.09E-04	1.21E-03	3.03E-04	4.09E-04	1.21E-03	3.03E-04	4.09E-04	1.21E-03	3.03E-04	1.21E-03	
Xylene	2.85E-04	8.44E-04	2.1E-04	2.85E-04	8.44E-04	2.11E-04	2.85E-04	8.44E-04	2.11E-04	2.85E-04	8.44E-04	2.11E-04	8.44E-04	
Acenaphthene	1.42E-06	4.20E-06	1.1E-06	1.42E-06	4.20E-06	1.05E-06	1.42E-06	4.20E-06	1.05E-06	1.42E-06	4.20E-06	1.05E-06	4.20E-06	
Acenaphthylene	5.06E-06	1.50E-05	3.7E-06	5.06E-06	1.50E-05	3.74E-06	5.06E-06	1.50E-05	3.74E-06	5.06E-06	1.50E-05	3.74E-06	1.50E-05	
Anthracene	1.87E-06	5.54E-06	1.4E-06	1.87E-06	5.54E-06	1.38E-06	1.87E-06	5.54E-06	1.38E-06	1.87E-06	5.54E-06	1.38E-06	5.54E-06	
Benzo(a)anthracene	1.68E-06	4.97E-06	1.2E-06	1.68E-06	4.97E-06	1.24E-06	1.68E-06	4.97E-06	1.24E-06	1.68E-06	4.97E-06	1.24E-06	4.97E-06	
Benzo(a)pyrene	1.88E-07	5.56E-07	1.4E-07	1.88E-07	5.56E-07	1.39E-07	1.88E-07	5.56E-07	1.39E-07	1.88E-07	5.56E-07	1.39E-07	5.56E-07	
Benzo(b,j,k)fluoranthene	1.55E-07	4.59E-07	1.1E-07	1.55E-07	4.59E-07	1.15E-07	1.55E-07	4.59E-07	1.15E-07	1.55E-07	4.59E-07	1.15E-07	4.59E-07	
Benzo(g,h,i)perylene	4.89E-07	1.45E-06	3.6E-07	4.89E-07	1.45E-06	3.62E-07	4.89E-07	1.45E-06	3.62E-07	4.89E-07	1.45E-06	3.62E-07	1.45E-06	
Chrysene	3.53E-07	1.04E-06	2.6E-07	3.53E-07	1.04E-06	2.61E-07	3.53E-07	1.04E-06	2.61E-07	3.53E-07	1.04E-06	2.61E-07	1.04E-06	
Dibenzo(a,h)anthracene	5.83E-07	1.73E-06	4.3E-07	5.83E-07	1.73E-06	4.31E-07	5.83E-07	1.73E-06	4.31E-07	5.83E-07	1.73E-06	4.31E-07	1.73E-06	
Fluoranthene	7.61E-06	2.25E-05	5.6E-06	7.61E-06	2.25E-05	5.63E-06	7.61E-06	2.25E-05	5.63E-06	7.61E-06	2.25E-05	5.63E-06	2.25E-05	
Fluorene	2.92E-05	8.64E-05	2.2E-05	2.92E-05	8.64E-05	2.16E-05	2.92E-05	8.64E-05	2.16E-05	2.92E-05	8.64E-05	2.16E-05	8.64E-05	
Indeno(1,2,3-cd)pyrene	3.75E-07	1.11E-06	2.8E-07	3.75E-07	1.11E-06	2.78E-07	3.75E-07	1.11E-06	2.78E-07	3.75E-07	1.11E-06	2.78E-07	1.11E-06	
Naphthalene	8.48E-05	2.51E-04	6.3E-05	8.48E-05	2.51E-04	6.28E-05	8.48E-05	2.51E-04	6.28E-05	8.48E-05	2.51E-04	6.28E-05	2.51E-04	
Phenanthrene	2.94E-05	8.70E-05	2.2E-05	2.94E-05	8.70E-05	2.18E-05	2.94E-05	8.70E-05	2.18E-05	2.94E-05	8.70E-05	2.18E-05	8.70E-05	
Pyrene	4.78E-06	1.41E-05	3.5E-06	4.78E-06	1.41E-05	3.54E-06	4.78E-06	1.41E-05	3.54E-06	4.78E-06	1.41E-05	3.54E-06	1.41E-05	
TOTAL HAP		1.15E-02	2.9E-03		1.15E-02	2.87E-03		1.15E-02	2.87E-03		1.15E-02	2.87E-03	0.011	
Greenhouse Gases														
CO2	163.0818	4.83E+02	120.68	163.0818	4.83E+02	120.68	163.0818	5.64E+02	141.07	163.0818	3.42E+02	85.62	468.045	
CH4	0.006615	1.96E-02	0.0049	0.006615	1.96E-02	0.0049	0.006615	2.29E-02	0.0057	0.006615	1.39E-02	0.0035	0.019	
N2O	0.001323	3.92E-03	0.0010	0.001323	3.92E-03	0.0010	0.001323	4.58E-03	0.0011	0.001323	2.78E-03	0.0007	0.004	
CO2e	163.641429	4.84E+02	121.09	163.641429	4.84E+02	121.09	163.641429	5.66E+02	141.55	163.641429	3.44E+02	85.91	469.651	

**BAE TECHNOLOGY CENTER
POTENTIAL TO EMIT SUMMARY**

EXISTING Facility Potential to Emit

Unit	BOILERS SUMMARY	EMERGENCY ENGINE SUMMARY	EXISTING FACILITY PTE
Capacity	PTE	PTE	PTE
Throughput			
Hours of Operation			
Pollutant	TPY	TPY	TOTAL FACILITY PTE TPY
Particulate Matter	11.26	0.89	12.15
Particulate Matter <10 microns	11.26	0.89	12.15
Particulate Matter <2.5 microns	11.26	0.89	12.15
Sulfur Dioxide	38.83	0.83	39.67
Nitrogen Oxides	111.50	12.66	124.15
Carbon Monoxide	66.32	2.73	69.05
Volatile Organic Compounds	7.35	1.00	8.35
Benzene	1.26E-03	1.16E-04	1.38E-03
1,3-Butadiene			
Acetaldehyde			
Acrolein			
Lead	6.87E-03	2.27E-03	9.14E-03
Mercury	2.29E-03	2.74E-04	2.57E-03
Arsenic	3.05E-03		3.05E-03
Beryllium	2.28E-03		2.28E-03
Cadmium	2.33E-03		2.33E-03
Chromium	2.34E-03		2.34E-03
Cobalt	3.67E-06		3.67E-06
Formaldehyde	1.84E-01	3.49E-03	1.87E-01
Hexane	1.42E+00		1.42 SINGLE HAP
Manganese	4.58E-03		4.58E-03
Naphthalene	2.66E-05		2.66E-05
Nickel	2.37E-03		2.37E-03
Selenium	1.14E-02		1.14E-02
Toluene	3.40E-02		3.40E-02
Xylene		8.44E-04	8.44E-04
Polycyclic Organic Matter (POM)	1.80E-02	1.21E-03	1.92E-02
2-Methylnaphthalene	1.05E-06	8.44E-04	8.45E-04
3-Methylchloranthrene	7.85E-08	4.20E-06	4.28E-06
7,12-Dimethylbenz(a)anthracene	6.98E-07	1.50E-05	1.57E-05
Acenaphthene	1.15E-04	5.54E-06	1.21E-04
Acenaphthylene	1.46E-06	4.97E-06	6.43E-06
Anthracene	6.77E-06	5.56E-07	7.33E-06
Benzo(a)anthracene	2.20E-05	4.59E-07	2.25E-05
Benzo(a)pyrene	5.24E-08	1.45E-06	1.50E-06
Benzo(b,j,k)fluoranthene	8.17E-06	1.04E-06	9.21E-06
Benzo(g,h,i)perylene	1.24E-05	1.73E-06	1.41E-05
Chrysene	1.31E-05	2.25E-05	3.56E-05
Dibenzo(a,h)anthracene	9.18E-06	8.64E-05	9.56E-05
Dichlorobenzene	5.24E-05	1.11E-06	5.35E-05
Fluoranthene	2.66E-05	2.51E-04	2.78E-04
Fluorene	2.46E-05	8.70E-05	1.12E-04
Indeno(1,2,3-cd)pyrene	1.18E-05	1.41E-05	2.59E-05
Phenanthrene	5.81E-05	1.15E-02	1.15E-02
Pyrene	2.34E-05		2.34E-05
TOTAL PAH		1.40E-02	3.24E-02
			1.75 TOTAL HAP
Greenhouse Gases			
CO2	129,434	468	129,902
CH4	5.13	0.02	5.15
N2O	1.02	0.00	1.02
CO2e	129,865	470	130,335
CO2 Mass	129,440	468	129,908

90 TPY Permit limit

SINGLE HAP

TOTAL HAP

**BAE TECHNOLOGY CENTER
POTENTIAL TO EMIT SUMMARY**

REVISED Facility Potential to Emit

Unit	BOILERS SUMMARY	EMERGENCY ENGINE SUMMARY	REVISED FACILITY PTE
Capacity	PTE	PTE	PTE
Throughput			
Hours of Operation			
Pollutant	TPY	TPY	TPY
Particulate Matter	1.90	0.84	2.74
Particulate Matter <10 microns	1.90	0.84	2.74
Particulate Matter <2.5 microns	1.90	0.84	2.74
Sulfur Dioxide	6.73	0.79	7.52
Nitrogen Oxides	18.95	12.00	30.95
Carbon Monoxide	10.76	2.58	13.35
Volatile Organic Compounds	1.23	0.95	2.18
Benzene	2.69E-04	2.07E-03	2.34E-03
1,3-Butadiene		8.68E-05	8.68E-05
Acetaldehyde		1.70E-03	1.70E-03
Acrolein		2.05E-04	2.05E-04
Lead	1.19E-03		1.19E-03
Mercury	3.96E-04		3.96E-04
Arsenic	5.28E-04		5.28E-04
Beryllium	3.96E-04		3.96E-04
Cadmium	3.96E-04		3.96E-04
Chromium	3.96E-04		3.96E-04
Cobalt	1.08E-05		1.08E-05
Formaldehyde	3.13E-02	2.62E-03	3.39E-02
Hexane	2.31E-01		0.23 SINGLE HAP
Manganese	7.92E-04		7.92E-04
Naphthalene	7.82E-05	1.88E-04	2.66E-04
Nickel	3.96E-04		3.96E-04
Selenium	1.98E-03		1.98E-03
Toluene	5.87E-03	9.08E-04	6.78E-03
Xylene		6.33E-04	6.33E-04
Polycyclic Organic Matter (POM)	3.13E-03		3.13E-03
2-Methylnaphthalene	3.07E-06		3.07E-06
3-Methylchloranthrene	2.31E-07		2.31E-07
7,12-Dimethylbenz(a)anthracene	2.05E-06		2.05E-06
Acenaphthene	2.00E-05	3.15E-06	2.31E-05
Acenaphthylene	2.40E-07	1.12E-05	1.15E-05
Anthracene	1.16E-06	4.15E-06	5.31E-06
Benzo(a)anthracene	3.80E-06	3.73E-06	7.53E-06
Benzo(a)pyrene	1.54E-07	4.17E-07	5.71E-07
Benzo(b,j,k)fluoranthene	1.40E-06	3.44E-07	1.75E-06
Benzo(g,h,i)perylene	2.14E-06	1.09E-06	3.23E-06
Chrysene	2.26E-06	7.84E-07	3.04E-06
Dibenzo(a,h)anthracene	1.58E-06	1.29E-06	2.88E-06
Dichlorobenzene	1.54E-04		1.54E-04
Fluoranthene	4.59E-06	1.69E-05	2.15E-05
Fluorene	4.24E-06	6.48E-05	6.91E-05
Indeno(1,2,3-cd)pyrene	2.03E-06	8.33E-07	2.86E-06
Phenanthrene	9.95E-06	6.53E-05	7.52E-05
Pyrene	4.03E-06	1.06E-05	1.46E-05
TOTAL PAH		1.85E-04	3.53E-03
			0.29 TOTAL HAP
Greenhouse Gases			
CO2	21,524.66	291.92	21,817
CH4	0.87	0.012	0.88
N2O	0.17	0.002	0.18
CO2e	21,598.53	292.92	21,891
CO2 Mass	21,525.71	291.93	21,818

FACILITY Potential t
Reduction

TOTAL POTENTIAL DIFFERENCE
Difference
TPY
-9.41
-9.41
-9.41
-32.15
-65.00
-55.70
-6.17
9.63E-04
8.68E-05
1.70E-03
2.05E-04
-7.95E-03
-2.17E-03
-2.52E-03
-1.89E-03
-1.93E-03
-1.95E-03
7.10E-06
-1.53E-01
-1.19E+00
-3.79E-03
2.40E-04
-1.98E-03
-9.43E-03
-2.73E-02
-2.11E-04
-1.61E-02
-8.42E-04
-4.05E-06
-1.36E-05
-9.78E-05
5.04E-06
-2.02E-06
-1.49E-05
-9.29E-07
-7.47E-06
-1.09E-05
-3.26E-05
-9.27E-05
1.00E-04
-2.56E-04
-4.25E-05
-2.31E-05
-1.14E-02
-8.81E-06
-2.89E-02
-1.46
-108085.28
-4.27
-0.84
-108443.33
-108090.39

BAE TECHNOLOGY CENTER BOILER EMISSIONS

SCC 10300602 Natural Gas
SCC 10300502 Fuel Oil

Boiler #4 EQUI 1									
Unit	Natural Gas				Fuel Oil				
	Capacity	10.46	MMBtu/hr		10.46	MMBtu/hr			
Throughput		0.0100	mmcf/hr		0.076	1000 gallons/hr			
Hours of Operation		8760	hrs/yr		8760	hrs/yr			
Pollutant	Emission Factor		Emission Rate		Emission Factor		Emission Rate		
	lb/mmcf	lbs/hour	TPY	EF Basis	lb/1000 gal	lbs/hour	TPY	EF Basis	
Particulate Matter	7.6	0.076	0.332	AP42 Table 1.4-2	2	0.152	0.664	AP42 Table 1.3-1	
Particulate Matter <10 microns	7.6	0.076	0.332	AP42 Table 1.4-2	2	0.152	0.664	AP42 Table 1.3-1	
Particulate Matter <2.5 microns	7.6	0.076	0.332	AP42 Table 1.4-2	2	0.152	0.664	AP42 Table 1.3-1	
Sulfur Dioxide	0.6	0.006	0.026	AP42 Table 1.4-2	7.1	0.538	2.357	AP42 Table 1.3-1	
Nitrogen Oxides	50	0.498	2.182	AP42 Table 1.4-1	20	1.516	6.640	AP42 Table 1.3-1	
Carbon Monoxide	84	0.837	3.665	AP42 Table 1.4-1	5	0.379	1.660	AP42 Table 1.3-1	
Volatile Organic Compounds	5.5	0.055	0.240	AP42 Table 1.4-2	1.3	0.099	0.432	AP42 Table 1.3-2	
Benzene	2.10E-03	2.09E-05	9.16E-05	AP42 Table 1.4-3	2.14E-04	1.62E-05	7.10E-05	AP42 Table 1.3-9	
Lead	5.00E-04	4.98E-06	2.18E-05	AP42 Table 1.4-2	9.00E-06	9.41E-05	4.12E-04	AP42 Table 1.3-10	
Mercury Compounds	2.60E-04	2.59E-06	1.13E-05	AP42 Table 1.4-4	3.00E-06	3.14E-05	1.37E-04	AP42 Table 1.3-10	
Arsenic Compounds	2.00E-04	1.99E-06	8.73E-06	AP42 Table 1.4-4	4.00E-06	4.18E-05	1.83E-04	AP42 Table 1.3-10	
Beryllium Compounds	1.20E-05	1.20E-07	5.24E-07	AP42 Table 1.4-4	3.00E-06	3.14E-05	1.37E-04	AP42 Table 1.3-10	
Cadmium Compounds	1.10E-03	1.10E-05	4.80E-05	AP42 Table 1.4-4	3.00E-06	3.14E-05	1.37E-04	AP42 Table 1.3-10	
Chromium Compounds	1.40E-03	1.39E-05	6.11E-05	AP42 Table 1.4-4	3.00E-06	3.14E-05	1.37E-04	AP42 Table 1.3-10	
Cobalt Compounds	8.40E-05	8.37E-07	3.67E-06	AP42 Table 1.4-4					
Formaldehyde	7.50E-02	7.47E-04	3.27E-03	AP42 Table 1.4-3	3.30E-02	2.50E-03	1.10E-02	AP42 Table 1.3-9	
Hexane	1.80E+00	1.79E-02	7.85E-02	AP42 Table 1.4-3					
Manganese Compounds	3.80E-04	3.79E-06	1.66E-05	AP42 Table 1.4-4	6.00E-06	6.28E-05	2.75E-04	AP42 Table 1.3-10	
Naphthalene	6.10E-04	6.08E-06	2.66E-05	AP42 Table 1.4-3					
Nickel Compounds	2.10E-03	2.09E-05	9.16E-05	AP42 Table 1.4-4	3.00E-06	3.14E-05	1.37E-04	AP42 Table 1.3-10	
Selenium Compounds	2.40E-05	2.39E-07	1.05E-06	AP42 Table 1.4-4	1.50E-05	1.57E-04	6.87E-04	AP42 Table 1.3-10	
Toluene	3.40E-03	3.39E-05	1.48E-04	AP42 Table 1.4-3	6.20E-03	4.70E-04	2.06E-03	AP42 Table 1.3-9	
Polycyclic Organic Matter (POM)					3.30E-03	2.50E-04	1.10E-03	AP42 Table 1.3-8	
2-Methylnaphthalene	2.40E-05	2.39E-07	1.05E-06	AP42 Table 1.4-3					
3-Methylchloranthrene	1.80E-06	1.79E-08	7.85E-08	AP42 Table 1.4-3					
7,12-Dimethylbenz(a)anthracene	1.60E-05	1.59E-07	6.98E-07	AP42 Table 1.4-3					
Acenaphthene	1.80E-06	1.79E-08	7.85E-08	AP42 Table 1.4-3	2.11E-05	1.60E-06	7.01E-06	AP42 Table 1.3-9	
Acenaphthylene	1.80E-06	1.79E-08	7.85E-08	AP42 Table 1.4-3	2.53E-07	1.92E-08	8.40E-08	AP42 Table 1.3-9	
Anthracene	2.40E-06	2.39E-08	1.05E-07	AP42 Table 1.4-3	1.22E-06	9.25E-08	4.05E-07	AP42 Table 1.3-9	
Benzo(a)anthracene	1.80E-06	1.79E-08	7.85E-08	AP42 Table 1.4-3	4.01E-06	3.04E-07	1.33E-06	AP42 Table 1.3-9	
Benzo(a)pyrene	1.20E-06	1.20E-08	5.24E-08	AP42 Table 1.4-3					
Benzo(b,j,k)fluoranthene	1.80E-06	1.79E-08	7.85E-08	AP42 Table 1.4-3	1.48E-06	1.12E-07	4.91E-07	AP42 Table 1.3-9	
Benzo(g,h,i)perylene	1.20E-06	1.20E-08	5.24E-08	AP42 Table 1.4-3	2.26E-06	1.71E-07	7.50E-07	AP42 Table 1.3-9	
Chrysene	1.80E-06	1.79E-08	7.85E-08	AP42 Table 1.4-3	2.38E-06	1.80E-07	7.90E-07	AP42 Table 1.3-9	
Dibenzo(a,h)anthracene	1.20E-06	1.20E-08	5.24E-08	AP42 Table 1.4-3	1.67E-06	1.27E-07	5.54E-07	AP42 Table 1.3-9	
1,4-Dichlorobenzene	1.20E-03	1.20E-05	5.24E-05	AP42 Table 1.4-3					
Fluoranthene	3.00E-06	2.99E-08	1.31E-07	AP42 Table 1.4-3	4.84E-06	3.67E-07	1.61E-06	AP42 Table 1.3-9	
Fluorene	2.80E-06	2.79E-08	1.22E-07	AP42 Table 1.4-3	4.47E-06	3.39E-07	1.48E-06	AP42 Table 1.3-9	
Indeno(1,2,3-cd)pyrene	1.80E-06	1.79E-08	7.85E-08	AP42 Table 1.4-3	2.14E-06	1.62E-07	7.10E-07	AP42 Table 1.3-9	
Phenanthrene	1.70E-05	1.69E-07	7.42E-07	AP42 Table 1.4-3	1.05E-05	7.96E-07	3.49E-06	AP42 Table 1.3-9	
Pyrene	5.00E-06	4.98E-08	2.18E-07	AP42 Table 1.4-3	4.25E-06	3.22E-07	1.41E-06	AP42 Table 1.3-9	
TOTAL PAH		1.28E-05	5.61E-05			4.59E-06	2.01E-05		
TOTAL HAP		0.019	0.082			0.004	0.016		
Greenhouse Gases	Greenhouse Gases				Greenhouse Gases				
CO2	116.9973	1,224	5,360	40 CFR 98	163.0818	1,706	7,472	40 CFR 98	
CH4	0.002205	0.0231	0.1010	40 CFR 98	0.006615	0.0692	0.3031	40 CFR 98	
N2O	0.0002205	0.0023	0.0101	40 CFR 98	0.001323	0.0138	0.0606	40 CFR 98	
CO2mass		1,223.82	5,360.32			1,705.92	7,471.92		
CO2e	117.1181	1,225	5,366	40 CFR 98	163.6414	1,712	7,497	40 CFR 98	

BAE TECHNOLOGY CENTER BOILER EMISSIONS

SCC 10300602 Natural Gas
SCC 10300502 Fuel Oil

Boiler #5 - EQUI 9									
Unit	Natural Gas				Fuel Oil				TOTAL
	Capacity	19.674	MMBtu/hr		19.674	MMBtu/hr		ALL	
Throughput		0.0193	mmcf/hr		0.141	1000 gallons/hr		NEW	
Hours of Operation		8760	hrs/yr		8760	hrs/yr		BOILERS	
Pollutant	Emission Factor	Emission Rate		EF Basis	Emission Factor	Emission Rate		SUMMARY	
	lb/mmcf	lbs/hour	TPY		lb/1000 gal	lbs/hour	TPY	PTE	
									TPY
Particulate Matter	7.6	0.147	0.642	AP42 Table 1.4-2	2	0.281	1.231	AP42 Table 1.3-1	1.895
Particulate Matter <10 microns	7.6	0.147	0.642	AP42 Table 1.4-2	2	0.281	1.231	AP42 Table 1.3-1	1.895
Particulate Matter <2.5 microns	7.6	0.147	0.642	AP42 Table 1.4-2	2	0.281	1.231	AP42 Table 1.3-1	1.895
Sulfur Dioxide	0.6	0.012	0.051	AP42 Table 1.4-2	7.1	0.998	4.370	AP42 Table 1.3-1	6.727
Nitrogen Oxides	50	0.964	4.224	AP42 Table 1.4-1	20	2.811	12.310	AP42 Table 1.3-1	18.950
Carbon Monoxide	84	1.620	7.097	AP42 Table 1.4-1	5	0.703	3.078	AP42 Table 1.3-1	10.762
Volatile Organic Compounds	5.5	0.106	0.465	AP42 Table 1.4-2	1.3	0.183	0.800	AP42 Table 1.3-2	1.232
Benzene	2.10E-03	4.05E-05	1.77E-04	AP42 Table 1.4-3	2.14E-04	3.01E-05	1.32E-04	AP42 Table 1.3-9	2.69E-04
Lead	5.00E-04	9.64E-06	4.22E-05	AP42 Table 1.4-2	9.00E-06	1.77E-04	7.76E-04	AP42 Table 1.3-10	1.19E-03
Mercury Compounds	2.60E-04	5.01E-06	2.20E-05	AP42 Table 1.4-4	3.00E-06	5.90E-05	2.59E-04	AP42 Table 1.3-10	3.96E-04
Arsenic Compounds	2.00E-04	3.86E-06	1.69E-05	AP42 Table 1.4-4	4.00E-06	7.87E-05	3.45E-04	AP42 Table 1.3-10	5.28E-04
Beryllium Compounds	1.20E-05	2.31E-07	1.01E-06	AP42 Table 1.4-4	3.00E-06	5.90E-05	2.59E-04	AP42 Table 1.3-10	3.96E-04
Cadmium Compounds	1.10E-03	2.12E-05	9.29E-05	AP42 Table 1.4-4	3.00E-06	5.90E-05	2.59E-04	AP42 Table 1.3-10	3.96E-04
Chromium Compounds	1.40E-03	2.70E-05	1.18E-04	AP42 Table 1.4-4	3.00E-06	5.90E-05	2.59E-04	AP42 Table 1.3-10	3.96E-04
Cobalt Compounds	8.40E-05	1.62E-06	7.10E-06	AP42 Table 1.4-4					1.08E-05
Formaldehyde	7.50E-02	1.45E-03	6.34E-03	AP42 Table 1.4-3	3.30E-02	4.64E-03	2.03E-02	AP42 Table 1.3-9	3.13E-02
Hexane	1.80E+00	3.47E-02	1.52E-01	AP42 Table 1.4-3					0.231
Manganese Compounds	3.80E-04	7.33E-06	3.21E-05	AP42 Table 1.4-4	6.00E-06	1.18E-04	5.17E-04	AP42 Table 1.3-10	7.92E-04
Naphthalene	6.10E-04	1.18E-05	5.15E-05	AP42 Table 1.4-3					7.82E-05
Nickel Compounds	2.10E-03	4.05E-05	1.77E-04	AP42 Table 1.4-3	3.00E-06	5.90E-05	2.59E-04	AP42 Table 1.3-10	3.96E-04
Selenium Compounds	2.40E-05	4.63E-07	2.03E-06	AP42 Table 1.4-4	1.50E-05	2.95E-04	1.29E-03	AP42 Table 1.3-10	1.98E-03
Toluene	3.40E-03	6.56E-05	2.87E-04	AP42 Table 1.4-3	6.20E-03	8.71E-04	3.82E-03	AP42 Table 1.3-9	5.87E-03
Polycyclic Organic Matter (POM)					3.30E-03	4.64E-04	2.03E-03	AP42 Table 1.3-8	3.13E-03
2-Methylnaphthalene	2.40E-05	4.63E-07	2.03E-06	AP42 Table 1.4-3					3.07E-06
3-Methylchloranthrene	1.80E-06	3.47E-08	1.52E-07	AP42 Table 1.4-3					2.31E-07
7,12-Dimethylbenz(a)anthracene	1.60E-05	3.09E-07	1.35E-06	AP42 Table 1.4-3					2.05E-06
Acenaphthene	1.80E-06	3.47E-08	1.52E-07	AP42 Table 1.4-3	2.11E-05	2.97E-06	1.30E-05	AP42 Table 1.3-9	2.00E-05
Acenaphthylene	1.80E-06	3.47E-08	1.52E-07	AP42 Table 1.4-3	2.53E-07	3.56E-08	1.56E-07	AP42 Table 1.3-9	2.40E-07
Anthracene	2.40E-06	4.63E-08	2.03E-07	AP42 Table 1.4-3	1.22E-06	1.71E-07	7.51E-07	AP42 Table 1.3-9	1.16E-06
Benzo(a)anthracene	1.80E-06	3.47E-08	1.52E-07	AP42 Table 1.4-3	4.01E-06	5.64E-07	2.47E-06	AP42 Table 1.3-9	3.80E-06
Benzo(a)pyrene	1.20E-06	2.31E-08	1.01E-07	AP42 Table 1.4-3					1.54E-07
Benzo(b,j,k)fluoranthene	1.80E-06	3.47E-08	1.52E-07	AP42 Table 1.4-3	1.48E-06	2.08E-07	9.11E-07	AP42 Table 1.3-9	1.40E-06
Benzo(g,h,i)perylene	1.20E-06	2.31E-08	1.01E-07	AP42 Table 1.4-3	2.26E-06	3.18E-07	1.39E-06	AP42 Table 1.3-9	2.14E-06
Chrysene	1.80E-06	3.47E-08	1.52E-07	AP42 Table 1.4-3	2.38E-06	3.34E-07	1.46E-06	AP42 Table 1.3-9	2.26E-06
Dibenzo(a,h)anthracene	1.20E-06	2.31E-08	1.01E-07	AP42 Table 1.4-3	1.67E-06	2.35E-07	1.03E-06	AP42 Table 1.3-9	1.58E-06
1,4-Dichlorobenzene	1.20E-03	2.31E-05	1.01E-04	AP42 Table 1.4-3					1.54E-04
Fluoranthene	3.00E-06	5.79E-08	2.53E-07	AP42 Table 1.4-3	4.84E-06	6.80E-07	2.98E-06	AP42 Table 1.3-9	4.59E-06
Fluorene	2.80E-06	5.40E-08	2.37E-07	AP42 Table 1.4-3	4.47E-06	6.28E-07	2.75E-06	AP42 Table 1.3-9	4.24E-06
Indeno(1,2,3-cd)pyrene	1.80E-06	3.47E-08	1.52E-07	AP42 Table 1.4-3	2.14E-06	3.01E-07	1.32E-06	AP42 Table 1.3-9	2.03E-06
Phenanthrene	1.70E-05	3.28E-07	1.44E-06	AP42 Table 1.4-3	1.05E-05	1.48E-06	6.46E-06	AP42 Table 1.3-9	9.95E-06
Pyrene	5.00E-06	9.64E-08	4.22E-07	AP42 Table 1.4-3	4.25E-06	5.97E-07	2.62E-06	AP42 Table 1.3-9	4.03E-06
TOTAL PAH		2.48E-05	1.09E-04			8.51E-06	3.73E-05		1.65E-04
TOTAL HAP		0.036	0.160			0.007	0.031		0.278
Greenhouse Gases	Greenhouse Gases				Greenhouse Gases				GHG TPY PTE
CO2	116.9973	2.302	10.082	40 CFR 98	163.0818	3.208	14.053	40 CFR 98	21,525
CH4	0.002205	0.0434	0.1900	40 CFR 98	0.006615	0.1301	0.5700	40 CFR 98	0.87
N2O	0.0002205	0.0043	0.0190	40 CFR 98	0.001323	0.0260	0.1140	40 CFR 98	0.17
CO2mass		2.301.85	10.082.11			3.208.63	14.053.79		21,525.71
CO2e	117.1181	2.304	10.092	40 CFR 98	163.6414	3.219	14.101	40 CFR 98	21,599

SINGLE HAP

TOTAL HAP

BAE TECHNOLOGY CENTER GENERATOR EMISSIONS

SCC 10300501

Distillate Fuel Oil

	EQUI 2			EQUI 3			EQUI 10					Emergency Engine	Summary	PTE	Emission Factor
	Fuel Oil - Emergency Engine			Fuel Oil - Emergency Engine			Fuel Oil - Emergency Engine								
	2.96	MMBtu/hr		2.96	MMBtu/hr		1.24	MMBtu/hr							
		kW			kW			kW							
	500	1000 gallons/hr		500	1000 gallons/hr		500	1000 gallons/hr							
Emission			Emission			Emission			lb/hr	TPY	Factor				
Factor	Emission Rate		Factor	Emission Rate		Factor	Emission Rate								
lb/MMBtu	lbs/hour	TPY	lb/MMBtu	lbs/hour	TPY	lb/MMBtu	lbs/hour	TPY							
Particulate Matter	0.31	0.918	0.229	0.31	0.918	0.229	0.31	0.384	0.096	2.145	0.843	AP42 Table 3.3-1			
Particulate Matter <10 microns	0.31	0.918	0.229	0.31	0.918	0.229	0.31	0.384	0.096	2.145	0.843	AP42 Table 3.3-1			
Particulate Matter <2.5 microns	0.31	0.918	0.229	0.31	0.918	0.229	0.31	0.384	0.096	2.145	0.843	AP42 Table 3.3-1			
Sulfur Dioxide	0.29	0.858	0.215	0.29	0.858	0.215	0.29	0.360	0.090	2.007	0.789	AP42 Table 3.3-1			
Nitrogen Oxides	4.41	13.054	3.263	4.41	13.054	3.263	4.41	5.468	1.367	30.517	11.995	AP42 Table 3.3-1			
Carbon Monoxide	0.95	2.812	0.703	0.95	2.812	0.703	0.95	1.178	0.295	6.574	2.584	AP42 Table 3.3-1			
Volatile Organic Compounds	0.35	1.036	0.259	0.35	1.036	0.259	0.35	0.434	0.109	2.422	0.952	AP42 Table 3.3-1			
	lb/MMBtu	lbs/hour	TPY	lb/MMBtu	lbs/hour	TPY	lb/MMBtu	lbs/hour	TPY						
Benzene	9.33E-04	2.76E-03	6.9E-04	9.33E-04	2.76E-03	6.90E-04	9.33E-04	2.76E-03	6.90E-04	8.29E-03	2.07E-03	AP42 Table 3.3-2			
1,3-Butadiene	3.91E-05	1.16E-04	2.9E-05	3.91E-05	1.16E-04	2.89E-05	3.91E-05	1.16E-04	2.89E-05	3.47E-04	8.68E-05	AP42 Table 3.3-2			
Acetaldehyde	7.67E-04	2.27E-03	5.7E-04	7.67E-04	2.27E-03	5.68E-04	7.67E-04	2.27E-03	5.68E-04	6.81E-03	1.70E-03	AP42 Table 3.3-2			
Acrolein	9.25E-05	2.74E-04	6.8E-05	9.25E-05	2.74E-04	6.85E-05	9.25E-05	2.74E-04	6.85E-05	8.21E-04	2.05E-04	AP42 Table 3.3-2			
Arsenic Compounds															
Beryllium Compounds															
Cadmium Compounds															
Chromium Compounds															
Cobalt Compounds															
Formaldehyde	1.18E-03	3.49E-03	8.7E-04	1.18E-03	3.49E-03	8.73E-04	1.18E-03	3.49E-03	8.73E-04	1.05E-02	2.62E-03	AP42 Table 3.3-2	SINGLE HAP		
Hexane															
Lead															
Manganese Compounds															
Mercury Compounds															
Nickel Compounds															
Selenium Compounds															
Toluene	4.09E-04	1.21E-03	3.0E-04	4.09E-04	1.21E-03	3.03E-04	4.09E-04	1.21E-03	3.03E-04	3.63E-03	9.08E-04	AP42 Table 3.3-2			
Xylene	2.85E-04	8.44E-04	2.1E-04	2.85E-04	8.44E-04	2.11E-04	2.85E-04	8.44E-04	2.11E-04	2.53E-03	6.33E-04	AP42 Table 3.3-2			
Acenaphthene	1.42E-06	4.20E-06	1.1E-06	1.42E-06	4.20E-06	1.05E-06	1.42E-06	4.20E-06	1.05E-06	1.26E-05	3.15E-06	AP42 Table 3.3-2			
Acenaphthylene	5.06E-06	1.50E-05	3.7E-06	5.06E-06	1.50E-05	3.74E-06	5.06E-06	1.50E-05	3.74E-06	4.49E-05	1.12E-05	AP42 Table 3.3-2			
Anthracene	1.87E-06	5.54E-06	1.4E-06	1.87E-06	5.54E-06	1.38E-06	1.87E-06	5.54E-06	1.38E-06	1.66E-05	4.15E-06	AP42 Table 3.3-2			
Benzo(a)anthracene	1.68E-06	4.97E-06	1.2E-06	1.68E-06	4.97E-06	1.24E-06	1.68E-06	4.97E-06	1.24E-06	1.49E-05	3.73E-06	AP42 Table 3.3-2			
Benzo(a)pyrene	1.88E-07	5.56E-07	1.4E-07	1.88E-07	5.56E-07	1.39E-07	1.88E-07	5.56E-07	1.39E-07	1.67E-06	4.17E-07	AP42 Table 3.3-2			
Benzo(b,j,k)fluoranthene	1.55E-07	4.59E-07	1.1E-07	1.55E-07	4.59E-07	1.15E-07	1.55E-07	4.59E-07	1.15E-07	1.38E-06	3.44E-07	AP42 Table 3.3-2			
Benzo(g,h,i)perylene	4.89E-07	1.45E-06	3.6E-07	4.89E-07	1.45E-06	3.62E-07	4.89E-07	1.45E-06	3.62E-07	4.34E-06	1.09E-06	AP42 Table 3.3-2			
Chrysene	3.53E-07	1.04E-06	2.6E-07	3.53E-07	1.04E-06	2.61E-07	3.53E-07	1.04E-06	2.61E-07	3.13E-06	7.84E-07	AP42 Table 3.3-2			
Dibenzo(a,h)anthracene	5.83E-07	1.73E-06	4.3E-07	5.83E-07	1.73E-06	4.31E-07	5.83E-07	1.73E-06	4.31E-07	5.18E-06	1.29E-06	AP42 Table 3.3-2			
Fluoranthene	7.61E-06	2.25E-05	5.6E-06	7.61E-06	2.25E-05	5.63E-06	7.61E-06	2.25E-05	5.63E-06	6.76E-05	1.69E-05	AP42 Table 3.3-2			
Fluorene	2.92E-05	8.64E-05	2.2E-05	2.92E-05	8.64E-05	2.16E-05	2.92E-05	8.64E-05	2.16E-05	2.59E-04	6.48E-05	AP42 Table 3.3-2			
Indeno(1,2,3-cd)pyrene	3.75E-07	1.11E-06	2.8E-07	3.75E-07	1.11E-06	2.78E-07	3.75E-07	1.11E-06	2.78E-07	3.33E-06	8.33E-07	AP42 Table 3.3-2			
Naphthalene	8.48E-05	2.51E-04	6.3E-05	8.48E-05	2.51E-04	6.28E-05	8.48E-05	2.51E-04	6.28E-05	7.53E-04	1.88E-04	AP42 Table 3.3-2			
Phenanthrene	2.94E-05	8.70E-05	2.2E-05	2.94E-05	8.70E-05	2.18E-05	2.94E-05	8.70E-05	2.18E-05	2.61E-04	6.53E-05	AP42 Table 3.3-2			
Pyrene	4.78E-06	1.41E-05	3.5E-06	4.78E-06	1.41E-05	3.54E-06	4.78E-06	1.41E-05	3.54E-06	4.24E-05	1.06E-05	AP42 Table 3.3-2			
TOTAL HAP		1.15E-02	2.87E-03		1.15E-02	2.87E-03		1.15E-02	2.87E-03	0.034	0.0086	TOTAL HAP			
Greenhouse Gases	lb/MMBtu	lbs/hour	TPY	lb/MMBtu	lbs/hour	TPY	lb/MMBtu	lbs/hour	TPY						
CO2	163.0818	482.72213	120.68	163.0818	482.722128	120.68	163.0818	482.722132	120.68	1167.666	291.92	40 CFR 98			
CH4	0.006615	0.0196	0.0049	0.006615	0.0196	0.0049	0.006615	0.0196	0.0049	0.047	0.012	40 CFR 98			
N2O	0.001323	0.0039	0.0010	0.001323	0.0039	0.0010	0.001323	0.0039	0.0010	0.009	0.002	40 CFR 98			
CO2e	163.641429	484.37863	121.09	163.641429	484.37863	121.09	163.641429	484.37863	121.09	1171.673	292.92	40 CFR 98			

FACILITY DESCRIPTION: Potential-to-emit (by item)

AQD Facility ID:
Facility Name:

00300245
BAE Technology Center

Hourly Potential Emissions (lbs/hr)	Unrestricted Potential Emissions (tons/yr)	Limited Potential Emissions (tons/yr)	Projected Actual Emissions (tons/yr)
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EQUI 1	Boiler No. 4		
Particulate Matter	0.15	0.66	0.66
Particulate Matter <10 microns	0.15	0.66	0.66
Particulate Matter <2.5 microns	0.15	0.66	0.66
Sulfur Dioxide	0.54	2.36	2.36
Nitrogen Oxides	1.52	6.64	6.64
Carbon Monoxide	0.84	3.67	3.67
Volatile Organic Compounds	0.10	0.43	0.43
Benzene	2.09E-05	9.16E-05	9.16E-05
Lead	9.41E-05	4.12E-04	4.12E-04
Mercury Compounds	3.14E-05	1.37E-04	1.37E-04
Arsenic Compounds	4.18E-05	1.83E-04	1.83E-04
Beryllium Compounds	3.14E-05	1.37E-04	1.37E-04
Cadmium Compounds	3.14E-05	1.37E-04	1.37E-04
Chromium Compounds	3.14E-05	1.37E-04	1.37E-04
Cobalt Compounds	8.37E-07	3.67E-06	3.67E-06
Formaldehyde	2.50E-03	1.10E-02	1.10E-02
Hexane	1.79E-02	7.85E-02	7.85E-02
Manganese Compounds	6.28E-05	2.75E-04	2.75E-04
Naphthalene	6.08E-06	2.66E-05	2.66E-05
Nickel Compounds	3.14E-05	1.37E-04	1.37E-04
Selenium Compounds	1.57E-04	6.87E-04	6.87E-04
Toluene	4.70E-04	2.06E-03	2.06E-03
Polycyclic Organic Matter (POM)	2.50E-04	1.10E-03	1.10E-03
2-Methylnaphthalene	2.39E-07	1.05E-06	1.05E-06
3-Methylchloranthrene	1.79E-08	7.85E-08	7.85E-08
7,12-Dimethylbenz(a)anthracene	1.59E-07	6.98E-07	6.98E-07
Acenaphthene	1.60E-06	7.01E-06	7.01E-06
Acenaphthylene	1.92E-08	8.40E-08	8.40E-08
Anthracene	9.25E-08	4.05E-07	4.05E-07
Benzo(a)anthracene	3.04E-07	1.33E-06	1.33E-06
Benzo(a)pyrene	1.20E-08	5.24E-08	5.24E-08
Benzo(b,j,k)fluoranthene	1.12E-07	4.91E-07	4.91E-07
Benzo(g,h,i)perylene	1.71E-07	7.50E-07	7.50E-07
Chrysene	1.80E-07	7.90E-07	7.90E-07
Dibenzo(a,h)anthracene	1.27E-07	5.54E-07	5.54E-07
1,4-Dichlorobenzene	1.20E-05	5.24E-05	5.24E-05
Fluoranthene	3.67E-07	1.61E-06	1.61E-06
Fluorene	3.39E-07	1.48E-06	1.48E-06
Indeno(1,2,3-cd)pyrene	1.62E-07	7.10E-07	7.10E-07
Phenanthrene	7.96E-07	3.49E-06	3.49E-06
Pyrene	3.22E-07	1.41E-06	1.41E-06
TOTAL PAH	1.28E-05	5.61E-05	5.61E-05
TOTAL HAP	2.17E-02	9.51E-02	9.51E-02
CO2	1,705.84	7,471.56	7,471.56
CH4	6.92E-02	3.03E-01	3.03E-01
N2O	1.38E-02	6.06E-02	6.06E-02
CO2e	1,711.69	7,497.20	7,497.20

FACILITY DESCRIPTION: Potential-to-emit (by item)

AQD Facility ID:
Facility Name:

00300245
BAE Technology Center

Hourly Potential Emissions (lbs/hr)	Unrestricted Potential Emissions (tons/yr)	Limited Potential Emissions (tons/yr)	Projected Actual Emissions (tons/yr)
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EQUI 2	Standby Generator-Sub 3(W)		
Particulate Matter	0.92	0.23	0.23
Particulate Matter <10 microns	0.92	0.23	0.23
Particulate Matter <2.5 microns	0.92	0.23	0.23
Sulfur Dioxide	0.86	0.21	0.21
Nitrogen Oxides	13.05	3.26	3.26
Carbon Monoxide	2.81	0.70	0.70
Volatile Organic Compounds	1.04	0.26	0.26
Benzene	2.76E-03	6.90E-04	6.90E-04
1,3-Butadiene	1.16E-04	2.89E-05	2.89E-05
Acetaldehyde	2.27E-03	5.68E-04	5.68E-04
Acrolein	2.74E-04	6.85E-05	6.85E-05
Formaldehyde	3.49E-03	8.73E-04	8.73E-04
Toluene	1.21E-03	3.03E-04	3.03E-04
Xylene	8.44E-04	2.11E-04	2.11E-04
Acenaphthene	4.20E-06	1.05E-06	1.05E-06
Acenaphthylene	1.50E-05	3.74E-06	3.74E-06
Anthracene	5.54E-06	1.38E-06	1.38E-06
Benzo(a)anthracene	4.97E-06	1.24E-06	1.24E-06
Benzo(a)pyrene	5.56E-07	1.39E-07	1.39E-07
Benzo(b,j,k)fluoranthene	4.59E-07	1.15E-07	1.15E-07
Benzo(g,h,i)perylene	1.45E-06	3.62E-07	3.62E-07
Chrysene	1.04E-06	2.61E-07	2.61E-07
Dibenzo(a,h)anthracene	1.73E-06	4.31E-07	4.31E-07
Fluoranthene	2.25E-05	5.63E-06	5.63E-06
Fluorene	8.64E-05	2.16E-05	2.16E-05
Indeno(1,2,3-cd)pyrene	1.11E-06	2.78E-07	2.78E-07
Naphthalene	2.51E-04	6.28E-05	6.28E-05
Phenanthrene	8.70E-05	2.18E-05	2.18E-05
Pyrene	1.41E-05	3.54E-06	3.54E-06
TOTAL HAP	1.15E-02	2.87E-03	2.87E-03
CO2	482.72	120.68	120.68
CH4	1.96E-02	4.90E-03	4.90E-03
N2O	3.92E-03	9.79E-04	9.79E-04
CO2e	484.38	121.09	121.09

FACILITY DESCRIPTION: Potential-to-emit (by item)

AQD Facility ID:
Facility Name:

00300245
BAE Technology Center

Hourly Potential Emissions (lbs/hr)	Unrestricted Potential Emissions (tons/yr)	Limited Potential Emissions (tons/yr)	Projected Actual Emissions (tons/yr)
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EQUI 3	Standby Generator-Sub 3(E)		
Particulate Matter	0.92	0.23	0.23
Particulate Matter <10 microns	0.92	0.23	0.23
Particulate Matter <2.5 microns	0.92	0.23	0.23
Sulfur Dioxide	0.86	0.21	0.21
Nitrogen Oxides	13.05	3.26	3.26
Carbon Monoxide	2.81	0.70	0.70
Volatile Organic Compounds	1.04	0.26	0.26
Benzene	2.76E-03	6.90E-04	6.90E-04
1,3-Butadiene	1.16E-04	2.89E-05	2.89E-05
Acetaldehyde	2.27E-03	5.68E-04	5.68E-04
Acrolein	2.74E-04	6.85E-05	6.85E-05
Formaldehyde	3.49E-03	8.73E-04	8.73E-04
Toluene	1.21E-03	3.03E-04	3.03E-04
Xylene	8.44E-04	2.11E-04	2.11E-04
Acenaphthene	4.20E-06	1.05E-06	1.05E-06
Acenaphthylene	1.50E-05	3.74E-06	3.74E-06
Anthracene	5.54E-06	1.38E-06	1.38E-06
Benzo(a)anthracene	4.97E-06	1.24E-06	1.24E-06
Benzo(a)pyrene	5.56E-07	1.39E-07	1.39E-07
Benzo(b,j,k)fluoranthene	4.59E-07	1.15E-07	1.15E-07
Benzo(g,h,i)perylene	1.45E-06	3.62E-07	3.62E-07
Chrysene	1.04E-06	2.61E-07	2.61E-07
Dibenzo(a,h)anthracene	1.73E-06	4.31E-07	4.31E-07
Fluoranthene	2.25E-05	5.63E-06	5.63E-06
Fluorene	8.64E-05	2.16E-05	2.16E-05
Indeno(1,2,3-cd)pyrene	1.11E-06	2.78E-07	2.78E-07
Naphthalene	2.51E-04	6.28E-05	6.28E-05
Phenanthrene	8.70E-05	2.18E-05	2.18E-05
Pyrene	1.41E-05	3.54E-06	3.54E-06
TOTAL HAP	1.15E-02	2.87E-03	2.87E-03
CO2	482.72	120.68	120.68
CH4	1.96E-02	4.90E-03	4.90E-03
N2O	3.92E-03	9.79E-04	9.79E-04
CO2e	484.38	121.09	121.09

FACILITY DESCRIPTION: Potential-to-emit (by item)

AQD Facility ID:
Facility Name:

00300245
BAE Technology Center

Hourly Potential Emissions (lbs/hr)	Unrestricted Potential Emissions (tons/yr)	Limited Potential Emissions (tons/yr)	Projected Actual Emissions (tons/yr)
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EQUI 9	Boiler No. 5		
Particulate Matter	0.28	1.23	1.23
Particulate Matter <10 microns	0.28	1.23	1.23
Particulate Matter <2.5 microns	0.28	1.23	1.23
Sulfur Dioxide	1.00	4.37	4.37
Nitrogen Oxides	2.81	12.31	12.31
Carbon Monoxide	1.62	7.10	7.10
Volatile Organic Compounds	0.18	0.80	0.80
Benzene	4.05E-05	1.77E-04	1.77E-04
Lead	1.77E-04	7.76E-04	7.76E-04
Mercury Compounds	5.90E-05	2.59E-04	2.59E-04
Arsenic Compounds	7.87E-05	3.45E-04	3.45E-04
Beryllium Compounds	5.90E-05	2.59E-04	2.59E-04
Cadmium Compounds	5.90E-05	2.59E-04	2.59E-04
Chromium Compounds	5.90E-05	2.59E-04	2.59E-04
Cobalt Compounds	1.62E-06	7.10E-06	7.10E-06
Formaldehyde	4.64E-03	2.03E-02	2.03E-02
Hexane	3.47E-02	1.52E-01	1.52E-01
Manganese Compounds	1.18E-04	5.17E-04	5.17E-04
Naphthalene	1.18E-05	5.15E-05	5.15E-05
Nickel Compounds	5.90E-05	2.59E-04	2.59E-04
Selenium Compounds	2.95E-04	1.29E-03	1.29E-03
Toluene	8.71E-04	3.82E-03	3.82E-03
Polycyclic Organic Matter (POM)	4.64E-04	2.03E-03	2.03E-03
2-Methylnaphthalene	4.63E-07	2.03E-06	2.03E-06
3-Methylchloranthrene	3.47E-08	1.52E-07	1.52E-07
7,12-Dimethylbenz(a)anthracene	3.09E-07	1.35E-06	1.35E-06
Acenaphthene	2.97E-06	1.30E-05	1.30E-05
Acenaphthylene	3.56E-08	1.56E-07	1.56E-07
Anthracene	1.71E-07	7.51E-07	7.51E-07
Benzo(a)anthracene	5.64E-07	2.47E-06	2.47E-06
Benzo(a)pyrene	2.31E-08	1.01E-07	1.01E-07
Benzo(b,j,k)fluoranthene	2.08E-07	9.11E-07	9.11E-07
Benzo(g,h,i)perylene	3.18E-07	1.39E-06	1.39E-06
Chrysene	3.34E-07	1.46E-06	1.46E-06
Dibenzo(a,h)anthracene	2.35E-07	1.03E-06	1.03E-06
1,4-Dichlorobenzene	2.31E-05	1.01E-04	1.01E-04
Fluoranthene	6.80E-07	2.98E-06	2.98E-06
Fluorene	6.28E-07	2.75E-06	2.75E-06
Indeno(1,2,3-cd)pyrene	3.01E-07	1.32E-06	1.32E-06
Phenanthrene	1.48E-06	6.46E-06	6.46E-06
Pyrene	5.97E-07	2.62E-06	2.62E-06
TOTAL PAH	2.48E-05	1.09E-04	1.09E-04
TOTAL HAP	4.18E-02	1.83E-01	1.83E-01
CO2	3208.47	14053.10	14053.10
CH4	1.30E-01	5.70E-01	5.70E-01
N2O	2.60E-02	1.14E-01	1.14E-01
CO2e	3219.48	14101.33	14101.33

FACILITY DESCRIPTION: Potential-to-emit (by item)

AQD Facility ID:
Facility Name:

00300245
BAE Technology Center

Hourly Potential Emissions (lbs/hr)	Unrestricted Potential Emissions (tons/yr)	Limited Potential Emissions (tons/yr)	Projected Actual Emissions (tons/yr)
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EQUI 10	Emergency Fire Pump		
Particulate Matter	0.38	0.10	0.10
Particulate Matter <10 microns	0.38	0.10	0.10
Particulate Matter <2.5 microns	0.38	0.10	0.10
Sulfur Dioxide	0.36	0.09	0.09
Nitrogen Oxides	5.47	1.37	1.37
Carbon Monoxide	1.18	0.29	0.29
Volatile Organic Compounds	0.43	0.11	0.11
Benzene	2.76E-03	6.90E-04	6.90E-04
1,3-Butadiene	2.76E-03	6.90E-04	6.90E-04
Acetaldehyde	1.16E-04	2.89E-05	2.89E-05
Acrolein	2.27E-03	5.68E-04	5.68E-04
Formaldehyde	3.49E-03	8.73E-04	8.73E-04
Toluene	1.21E-03	3.03E-04	3.03E-04
Xylene	8.44E-04	2.11E-04	2.11E-04
Acenaphthene	4.20E-06	1.05E-06	1.05E-06
Acenaphthylene	1.50E-05	3.74E-06	3.74E-06
Anthracene	5.54E-06	1.38E-06	1.38E-06
Benzo(a)anthracene	4.97E-06	1.24E-06	1.24E-06
Benzo(a)pyrene	5.56E-07	1.39E-07	1.39E-07
Benzo(b,j,k)fluoranthene	4.59E-07	1.15E-07	1.15E-07
Benzo(g,h,i)perylene	1.45E-06	3.62E-07	3.62E-07
Chrysene	1.04E-06	2.61E-07	2.61E-07
Dibenzo(a,h)anthracene	1.73E-06	4.31E-07	4.31E-07
Fluoranthene	2.25E-05	5.63E-06	5.63E-06
Fluorene	8.64E-05	2.16E-05	2.16E-05
Indeno(1,2,3-cd)pyrene	1.11E-06	2.78E-07	2.78E-07
Naphthalene	2.51E-04	6.28E-05	6.28E-05
Phenanthrene	8.70E-05	2.18E-05	2.18E-05
Pyrene	1.41E-05	3.54E-06	3.54E-06
TOTAL HAP	1.15E-02	2.87E-03	2.87E-03
CO2	202.22	50.56	50.56
CH4	8.20E-03	2.05E-03	2.05E-03
N2O	1.64E-03	4.10E-04	4.10E-04
CO2e	202.92	50.73	50.73

FACILITY DESCRIPTION: Potential-to-emit (by item)

AQD Facility ID:
Facility Name:

00300245
BAE Technology Center

Hourly Potential Emissions (lbs/hr)	Unrestricted Potential Emissions (tons/yr)	Limited Potential Emissions (tons/yr)	Projected Actual Emissions (tons/yr)
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	Total Facility		
Carbon Monoxide	9.26	12.46	12.46
Nitrogen Oxides	35.90	26.84	26.84
Particulate Matter	2.65	2.45	2.45
Particulate Matter <10 microns	2.65	2.45	2.45
Particulate Matter <2.5 microns	2.65	2.45	2.45
Sulfur Dioxide	3.61	7.25	7.25
Volatile Organic Compounds	2.79	1.86	1.86
CO2e	6102.84	21891.45	21891.45
Total Single HAP (Hexane):	0.05	0.23	0.23
Total HAP	0.10	0.29	0.29

ATTACHMENT 2
REQUIREMENTS DEVELOPMENT REPORT
(Available Electronically in Tempo)

Subject Item	Sequence	Description
TFAC 1 (Total Facility)	1	ACTIVITIES NOT REQUIRING A MODIFICATION TO THE SIP: The Permittee is authorized to make changes to the facility without obtaining a modification to the SIP as long as the change does not do or result in any of the following: 1. An exceedance of the limitations at which sulfur dioxide is emitted from any emission unit at the facility; and 2. A physical change of the equipment that affects the stack parameters described in Appendix B. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
TFAC 1 (Total Facility)	2	ACTIVITIES REQUIRING A MODIFICATION TO THE SIP: Activities requiring a modification of the SIP prior to the Permittee commencing the activity include, but are not limited to, the following: 1. Any decrease in the design and/or maximum stack gas volumetric flow rate below that contained in Appendix B; 2. Any decrease in the design and/or maximum stack gas exit temperature below that contained in Appendix B; 3. Any reduction in stack height below that contained in Appendix B; 4. Any increase in stack exit diameter above that contained in Appendix B; and 5. Any construction or modification of structures that increase the effective structural dimensions. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
TFAC 1 (Total Facility)	3	Construction and Operation of SIP Emission Unit: The Permittee may begin actual construction of a new emission unit or modification to existing emission unit upon permit issuance. However, the Permittee shall not operate any new emission unit or modified emission unit until any required SIP amendment is approved by U.S. EPA. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
TFAC 1 (Total Facility)	4	General Operating and Maintenance Requirements for the SIP: The Permittee shall operate and maintain the process equipment described in Appendix B according to the parameters set forth in Appendix B. The parameters were used in the computer modeling performed to demonstrate that the SO2 maintenance area will attain compliance with the SO2 NAAQS. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
TFAC 1 (Total Facility)	5	Non-Permanent Records for SIP: The Permittee shall retain all records at the facility for a minimum of six (6) years following the date of the required monitoring, sample, measurement, or report that corresponds with the SIP Title I Condition. All required documents, records, reports and plans in a form suitable for determination of the facility's compliance with the SIP by EPA or MPCA staff. The Permittee shall maintain the information at the facility in files which are easily accessible of inspections by EPA or MPCA staff, and are available for inspection. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
TFAC 1 (Total Facility)	6	Reporting: The Permittee may undertake certain changes to the facility without obtaining a modification to the SIP. However, if the Permittee does make a change, and if the change in any way affects SO2 emissions, the Permittee shall notify the Commissioner in writing at least 30 days prior to undertaking the change. The notification shall describe the change and why it does not require a modification to the SIP. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
TFAC 1 (Total Facility)	7	The Permittee shall submit an annual report : Due annually, by the 30th of January. The Permittee shall submit this report to the Commissioner. The report shall contain the following information: a record of data used in calculating SO2 emissions, and calculations of the SO2 emissions; a record of each unscheduled startup, shutdown, and breakdown of process equipment; a summary record of excess SO2 emissions (or the Permittee shall state if no exceedances, and noncompliance conditions occurred in the calendar year). [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]

Subject Item	Sequence	Description
TFAC 1 (Total Facility)	8	The Permittee shall comply with National Primary and Secondary Ambient Air Quality Standards, 40 CFR pt. 50, and the Minnesota Ambient Air Quality Standards, Minn. R. 7009.0010 to 7009.0080. Compliance shall be demonstrated upon written request by the MPCA. [Minn. R. 7007.0100, subp. 7(A), Minn. R. 7007.0100, subp. 7(L), Minn. R. 7007.0100, subp. 7(M), Minn. R. 7007.0800, subp. 1, Minn. R. 7007.0800, subp. 2, Minn. R. 7007.0800, subp. 4, Minn. R. 7009.0010-0080, Minn. Stat. 116.07, subd. 4a, Minn. Stat. 116.07, subd. 9]
TFAC 1 (Total Facility)	9	Permit Appendices: This permit contains appendices as listed in the permit Table of Contents. The Permittee shall comply with all requirements contained in Appendix A: Insignificant Activities and General Applicable Requirements. Modeling parameters in Appendix B: Modeling Information (State Implementation Plan for SO2) are included for reference only as described elsewhere in this permit. [Minn. R. 7007.0800, subp. 2]
TFAC 1 (Total Facility)	10	PERMIT SHIELD: Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provision of the applicable requirement identified in the permit as the basis of each condition. Subject to the limitations of Minn. R. 7007.1800 and 7017.0100, subp. 2, notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements. This permit shall not alter or affect the liability of the Permittee for any violation of applicable requirements prior to or at the time of permit issuance. [Minn. R. 7007.1800, (A)(2)]
TFAC 1 (Total Facility)	11	Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted. [Minn. R. 7011.0020]
TFAC 1 (Total Facility)	12	Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated. [Minn. R. 7007.0800, subp. 16(J), Minn. R. 7007.0800, subp. 2]
TFAC 1 (Total Facility)	13	Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. At a minimum, the O & M plan shall identify all air pollution control equipment and control practices and shall include a preventative maintenance program for the equipment and practices, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment and practices to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment and practices, and the records kept to demonstrate plan implementation. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.800, subp. 16(J)]
TFAC 1 (Total Facility)	14	Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate. [Minn. R. 7019.1000, subp. 4]
TFAC 1 (Total Facility)	15	Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150. [Minn. R. 7011.0150]
TFAC 1 (Total Facility)	16	Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act. [Minn. R. 7030.0010-7030.0080]

Subject Item	Sequence	Description
TFAC 1 (Total Facility)	17	Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A). [Minn. R. 7007.0800, subp. 9(A)]
TFAC 1 (Total Facility)	18	The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16. [Minn. R. 7007.0800, subp. 16]
TFAC 1 (Total Facility)	19	Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in in this permit. [Minn. R. ch. 7017]
TFAC 1 (Total Facility)	20	Performance Test Notifications and Submittals: Performance Tests are due as outlined in this permit. Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-test Meeting: due 7 days before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy: due 105 days after each Performance Test The Notification, Test Plan, and Test Report may be submitted in an alternative format as allowed by Minn. R. 7017.2018. [Minn. R. 7017.2018, Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]
TFAC 1 (Total Facility)	21	Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as stated in the MPCA's Notice of Compliance letter granting preliminary approval. Preliminary approval is based on formal review of a subsequent performance test on the same unit as specified by Minn. R. 7017.2025, subp. 3. The limit is final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025, subp. 3]
TFAC 1 (Total Facility)	22	Monitoring Equipment Calibration - The Permittee shall either: 1. Calibrate or replace required monitoring equipment every 12 months; or 2. Calibrate at the frequency stated in the manufacturer's specifications. For each monitor, the Permittee shall maintain a record of all calibrations, including the date conducted, and any corrective action that resulted. The Permittee shall include the calibration frequencies, procedures, and manufacturer's specifications (if applicable) in the Operations and Maintenance Plan. Any requirements applying to continuous emission monitors are listed separately in this permit. [Minn. R. 7007.0800, subp. 4(D)]
TFAC 1 (Total Facility)	23	Operation of Monitoring Equipment: Unless noted elsewhere in this permit, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system. [Minn. R. 7007.0800, subp. 4(D)]
TFAC 1 (Total Facility)	24	Recordkeeping: Retain all records at the stationary source, unless otherwise specified within this permit, for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A). [Minn. R. 7007.0800, subp. 5(C)]
TFAC 1 (Total Facility)	25	Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350, subp. 2), including records of the emissions resulting from those changes. [Minn. R. 7007.0800, subp. 5(B)]

Subject Item	Sequence	Description
TFAC 1 (Total Facility)	26	If the Permittee determines that no permit amendment or notification is required prior to making a change, the Permittee must retain records of all calculations required under Minn. R. 7007.1200. These records shall be kept for a period of five years from the date that the change was made. The records shall be kept at the stationary source for the current calendar year of operation and may be kept at the stationary source or office of the stationary source for all other years. The records may be maintained in either electronic or paper format. [Minn. R. 7007.1200, subp. 4]
TFAC 1 (Total Facility)	27	Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3. At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over. [Minn. R. 7019.1000, subp. 3]
TFAC 1 (Total Facility)	28	Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2. At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over. [Minn. R. 7019.1000, subp. 2]
TFAC 1 (Total Facility)	29	Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment. [Minn. R. 7019.1000, subp. 1]
TFAC 1 (Total Facility)	30	Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description: 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation. [Minn. R. 7019.1000, subp. 1]
TFAC 1 (Total Facility)	31	The Permittee shall submit a semiannual deviations report : Due semiannually, by the 30th of January and July. The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. If no deviations have occurred, the Permittee shall submit the report stating no deviations. [Minn. R. 7007.0800, subp. 6(A)(2)]
TFAC 1 (Total Facility)	32	Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed. Upon adoption of a new or amended federal applicable requirement, and if there are more than 3 years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150 - 7007.1500]

Subject Item	Sequence	Description
TFAC 1 (Total Facility)	33	Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H). Performance testing deadlines from the General Provisions of 40 CFR pt. 60 and pt. 63 are examples of deadlines for which the MPCA does not have authority to grant extensions and therefore do not meet the requirements of Minn. R. 7007.1400, subp. 1(H). [Minn. R. 7007.1400, subp. 1(H)]
TFAC 1 (Total Facility)	34	The Permittee shall submit a compliance certification : Due annually, by the 31st of January (for the previous calendar year). The Permittee shall submit this to the Commissioner on a form approved by the Commissioner. This report covers all deviations experienced during the calendar year. [Minn. R. 7007.0800, subp. 6(C)]
TFAC 1 (Total Facility)	35	Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance, to be submitted on a form approved by the Commissioner. [Minn. R. 7019.3000-7019.3100]
TFAC 1 (Total Facility)	36	Emission Fees: due 30 days after receipt of an MPCA bill. [Minn. R. 7002.0005-7002.0095]

Subject Item	Sequence	Description
EQUI 1 (Boiler No. 4)	1	Sulfur Content of Fuel <= 0.05 percent by weight for distillate fuel oil. THIS CONDITION WILL BECOME EFFECTIVE ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
EQUI 1 (Boiler No. 4)	2	Fuel Restriction: The Permittee is authorized to combust natural gas only. THIS CONDITION WILL BE TERMINATED ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Minn. R. 7005.0100, subp. 35a]
EQUI 1 (Boiler No. 4)	3	Fuel Restriction: The Permittee is authorized to combust natural gas or distillate fuel oil meeting the requirements of 40 CFR Section 80.510(c) only. THIS CONDITION WILL BECOME EFFECTIVE ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
EQUI 1 (Boiler No. 4)	4	Fuel Supplier Certification: The Permittee shall obtain and maintain written fuel supplier certification from the fuel supplier for each shipment of distillate fuel oil delivered to the facility. Each fuel certification shall include the following information: the name of the fuel oil supplier; the sulfur content of the fuel oil; and method used to determine the sulfur content of the fuel oil. THIS CONDITION WILL BECOME EFFECTIVE ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
EQUI 1 (Boiler No. 4)	5	The Permittee shall keep records of fuel type and usage on a monthly basis by the 28th day of each month. [Minn. R. 7007.0800, subp. 5]
EQUI 1 (Boiler No. 4)	6	This unit is a gas-fired boiler as defined by 40 CFR pt. 63, subp. JJJJJ and is not subject to 40 CFR pt. 63, subp. JJJJJ or any requirements in 40 CFR pt. 63, subp. JJJJJ. A gas-fired boiler is defined in 40 CFR Section 63.11237 as 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 periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year. [40 CFR 63.11195(e), 40 CFR 63.11237, Minn. R. 7011.7055]
EQUI 1 (Boiler No. 4)	7	The affected facility to which 40 CFR pt. 60, subp. Dc 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/hr)) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr). [40 CFR 60.40c(a), Minn. R. 7011.0570]
EQUI 1 (Boiler No. 4)	8	Sulfur Content of Fuel <= 0.5 percent by weight for distillate fuel oil or less than or equal to 215 ng/J (0.50 lb/MMBtu) heat input from distillate fuel oil. [40 CFR 60.42c(d), Minn. R. 7011.0570]
EQUI 1 (Boiler No. 4)	9	Fuel Supplier Certification: The Permittee shall determine compliance with the fuel oil sulfur limits based on a certification from the fuel supplier. [40 CFR 60.42c(h), Minn. R. 7011.0570]
EQUI 1 (Boiler No. 4)	10	The sulfur dioxide emission limits and fuel oil sulfur limits under 40 CFR Section 60.42c apply at all times, including periods of startup, shutdown, and malfunction. [40 CFR 60.42c(i), Minn. R. 7011.0570]
EQUI 1 (Boiler No. 4)	11	This unit combusts only natural gas and distillate fuel oil that contains no more than 0.50 weight percent sulfur and therefore is not subject to the particulate matter emission limits under 40 CFR Section 60.43c. The Permittee shall follow the applicable procedures of 40 CFR Section 60.48c(f) to demonstrate compliance under 40 CFR Section 60.43c(e)(4). [40 CFR 60.43c(e)(4), 40 CFR 60.45c(d), Minn. R. 7011.0570]

Subject Item	Sequence	Description
EQUI 1 (Boiler No. 4)	12	The Permittee shall submit a semiannual compliance report : Due by 31 days after end of each calendar half-year. The semiannual compliance report must contain the following: 1. Calendar dates covered in the reporting period; 2. Records of fuel supplier certification including the name of the fuel oil supplier, a statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR Section 60.41c, and the sulfur content or maximum sulfur content of the oil; and 3. A certified statement signed by the Permittee that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period. This report may be submitted with the Semiannual Deviations Report listed elsewhere in this permit. [40 CFR 60.48c(d), 40 CFR 60.48c(e), 40 CFR 60.48c(j), Minn. R. 7011.0570]
EQUI 1 (Boiler No. 4)	13	Fuel Supplier Certification Requirements: The certification shall include the following information for distillate fuel oil: 1. The name of the oil supplier; 2. A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR Section 60.41c; and 3. The sulfur content of the oil. This certification shall be obtained for each delivery of distillate fuel oil. [40 CFR 60.48c(f)(1), Minn. R. 7011.0570]
EQUI 1 (Boiler No. 4)	14	The Permittee shall record and maintain records of the amount of each fuel combusted in Boiler No. 4 during each operating day; OR The Permittee may elect to record and maintain records of the amount of each fuel combusted in Boiler No. 4 during each calendar month. If this option is chosen, by the last day of each calendar month, the Permittee shall record the amount of each fuel combusted in Boiler No. 4 during the previous calendar month. These records shall consist of purchase records, receipts, or fuel meter readings. [40 CFR 60.48c(g), Minn. R. 7011.0570]

Subject Item	Sequence	Description
EQUI 2 (Standby Generator - Sub 3W)	1	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
EQUI 2 (Standby Generator - Sub 3W)	2	Sulfur Dioxide <= 0.50 pounds per million Btu heat input. The potential to emit from the unit is 0.29 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2]
EQUI 2 (Standby Generator - Sub 3W)	3	Sulfur Content of Fuel <= 0.05 percent by weight for diesel fuel. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
EQUI 2 (Standby Generator - Sub 3W)	4	Fuel Restriction: The Permittee is authorized to burn diesel fuel only. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
EQUI 2 (Standby Generator - Sub 3W)	5	Fuel Supplier Certification: The Permittee shall obtain and maintain written fuel supplier certification from the fuel supplier for each shipment of diesel fuel oil delivered to the facility. Each fuel certification shall include the following information: the name of the fuel oil supplier; the sulfur content of the fuel oil and method used to determine the sulfur content of the fuel oil. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
EQUI 2 (Standby Generator - Sub 3W)	6	Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, limiting operation to 500 hours per year. [Minn. R. 7007.0800, subps. 4-5]
EQUI 2 (Standby Generator - Sub 3W)	7	The Permittee shall keep records of fuel type and usage on a monthly basis by the 28th day of each month. [Minn. R. 7007.0800, subp. 5]
EQUI 2 (Standby Generator - Sub 3W)	8	This unit is an existing affected source as defined under 40 CFR pt. 63, subp. ZZZZ and the facility is an area source as defined at 40 CFR Section 63.2. However, the unit is a commercial emergency stationary RICE that meets the criteria in 40 CFR Section 63.6585(f)(2), so 40 CFR pt. 63, subp. ZZZZ does not apply to this unit. The emergency stationary RICE must meet the definition of an emergency stationary RICE in 40 CFR Section 63.6675, which includes operating according to the provisions specified in 40 CFR Section 63.6640(f). [40 CFR 63.6585(f), Minn. R. 7011.8150]
EQUI 2 (Standby Generator - Sub 3W)	9	The emergency stationary RICE cannot operate or be contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR Section 63.6640(f)(2)(ii) and (iii) and the unit cannot operate for the purpose specified in 40 CFR Section 63.6640(f)(4)(ii). [40 CFR 63.6585(f)(2), Minn. R. 7011.8150]
EQUI 2 (Standby Generator - Sub 3W)	10	The Permittee must install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f), Minn. R. 7011.8150]
EQUI 2 (Standby Generator - Sub 3W)	11	The Permittee must operate the emergency stationary RICE according to the requirements in 40 CFR Section 63.6640(f)(1) through (4). In order for the engine to be considered an emergency stationary RICE under 40 CFR pt. 63, subp. ZZZZ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in nonemergency situations for 50 hours per year, as described in 40 CFR Section 63.6640(f)(1) through (4), is prohibited. If the Permittee does not operate the engine according to the requirements in 40 CFR Section 63.6640(f)(1) through (4), the engine will not be considered an emergency engine under 40 CFR pt. 63, subp. ZZZZ and must meet all requirements for nonemergency engines. [40 CFR 63.6640(f), Minn. R. 7011.8150]
EQUI 2 (Standby Generator - Sub 3W)	12	There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 63.6640(f)(1), Minn. R. 7011.8150]

Subject Item	Sequence	Description
EQUI 2 (Standby Generator - Sub 3W)	13	The Permittee may operate the emergency stationary RICE for any combination of the purposes specified in 40 CFR Section 63.6640(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR Section 63.6640(f)(3) and (4) counts as part of the 100 hours per calendar year allowed by 40 CFR Section 63.6640(f)(2). [40 CFR 63.6640(f)(2), Minn. R. 7011.8150]
EQUI 2 (Standby Generator - Sub 3W)	14	The Permittee may operate the 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, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee 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 Permittee maintains records indication that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. [40 CFR 63.6640(f)(2)(i), Minn. R. 7011.8150]
EQUI 2 (Standby Generator - Sub 3W)	15	This provision remains valid and in effect until revised by the U.S. EPA or until May 1, 2016 (the date which the D.C Circuit Court's mandate to vacate the provision is effective), whichever is earlier. Afterwards, this provision is no longer effective. The Permittee shall not operate according to this provision if vacated or shall operate according to the provision as amended by the U.S. EPA. Emergency stationary RICE may be operated, for no more than 15 hours per calendar year, for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see Section 63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [40 CFR 63.6585(f), 40 CFR 63.6640(f)(2)(ii), Minn. R. 7011.8150]
EQUI 2 (Standby Generator - Sub 3W)	16	This provision remains valid and in effect until revised by the U.S. EPA or until May 1, 2016 (the date which the D.C Circuit Court's mandate to vacate the provision is effective), whichever is earlier. Afterwards, this provision is no longer effective. The Permittee shall not operate according to this provision if vacated or shall operate according to the provision as amended by the U.S. EPA. Emergency stationary RICE may be operated, for no more than 15 hours per calendar year, for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [40 CFR 63.6585(f), 40 CFR 63.6640(f)(2)(iii), Minn. R. 7011.8150]
EQUI 2 (Standby Generator - Sub 3W)	17	Emergency stationary RICE 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 and emergency demand response provided in 40 CFR Section 63.6640(f)(2). 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. [40 CFR 63.6585(f), 40 CFR 63.6640(f)(4), Minn. R. 7011.8150]
EQUI 2 (Standby Generator - Sub 3W)	18	The Permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in 40 CFR Section 63.6640(f)(2)(ii) or (iii), the Permittee must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [40 CFR 63.6655(f), Minn. R. 7011.8150]

Subject Item	Sequence	Description
EQUI 2 (Standby Generator - Sub 3W)	19	The Permittee must maintain all records in a form suitable and readily available for expeditious review according to 40 CFR Section 63.10(b)(1). As specified in 40 CFR Section 63.10(b)(1), the Permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR section 63.10(b)(1). [40 CFR 63.10(b)(1), 40 CFR 63.6660, Minn. R. 7011.8150, Minn. R. 7019.0100, subp. 2(B)]

Subject Item	Sequence	Description
EQUI 3 (Standby Generator - Sub 3E)	1	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
EQUI 3 (Standby Generator - Sub 3E)	2	Sulfur Dioxide <= 0.50 pounds per million Btu heat input. The potential to emit from the unit is 0.29 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2]
EQUI 3 (Standby Generator - Sub 3E)	3	Sulfur Content of Fuel <= 0.05 percent by weight for diesel fuel. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
EQUI 3 (Standby Generator - Sub 3E)	4	Fuel Restriction: The Permittee is authorized to burn diesel fuel only. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
EQUI 3 (Standby Generator - Sub 3E)	5	Fuel Supplier Certification: The Permittee shall obtain and maintain written fuel supplier certification from the fuel supplier for each shipment of diesel fuel oil delivered to the facility. Each fuel certification shall include the following information: the name of the fuel oil supplier; the sulfur content of the fuel oil and method used to determine the sulfur content of the fuel oil. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
EQUI 3 (Standby Generator - Sub 3E)	6	Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, limiting operation to 500 hours per year. [Minn. R. 7007.0800, subps. 4-5]
EQUI 3 (Standby Generator - Sub 3E)	7	The Permittee shall keep records of fuel type and usage on a monthly basis by the 28th day of each month. [Minn. R. 7007.0800, subp. 5]
EQUI 3 (Standby Generator - Sub 3E)	8	This unit is an existing affected source as defined under 40 CFR pt. 63, subp. ZZZZ and the facility is an area source as defined at 40 CFR Section 63.2. However, the unit is a commercial emergency stationary RICE that meets the criteria in 40 CFR Section 63.6585(f)(2), so 40 CFR pt. 63, subp. ZZZZ does not apply to this unit. The emergency stationary RICE must meet the definition of an emergency stationary RICE in 40 CFR Section 63.6675, which includes operating according to the provisions specified in 40 CFR Section 63.6640(f). [40 CFR 63.6585(f), Minn. R. 7011.8150]
EQUI 3 (Standby Generator - Sub 3E)	9	The emergency stationary RICE cannot operate or be contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR Section 63.6640(f)(2)(ii) and (iii) and the unit cannot operate for the purpose specified in 40 CFR Section 63.6640(f)(4)(ii). [40 CFR 63.6585(f)(2), Minn. R. 7011.8150]
EQUI 3 (Standby Generator - Sub 3E)	10	The Permittee must install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f), Minn. R. 7011.8150]
EQUI 3 (Standby Generator - Sub 3E)	11	The Permittee must operate the emergency stationary RICE according to the requirements in 40 CFR Section 63.6640(f)(1) through (4). In order for the engine to be considered an emergency stationary RICE under 40 CFR pt. 63, subp. ZZZZ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in nonemergency situations for 50 hours per year, as described in 40 CFR Section 63.6640(f)(1) through (4), is prohibited. If the Permittee does not operate the engine according to the requirements in 40 CFR Section 63.6640(f)(1) through (4), the engine will not be considered an emergency engine under 40 CFR pt. 63, subp. ZZZZ and must meet all requirements for nonemergency engines. [40 CFR 63.6640(f), Minn. R. 7011.8150]
EQUI 3 (Standby Generator - Sub 3E)	12	There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 63.6640(f)(1), Minn. R. 7011.8150]

Subject Item	Sequence	Description
EQUI 3 (Standby Generator - Sub 3E)	13	The Permittee may operate the emergency stationary RICE for any combination of the purposes specified in 40 CFR Section 63.6640(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR Section 63.6640(f)(3) and (4) counts as part of the 100 hours per calendar year allowed by 40 CFR Section 63.6640(f)(2). [40 CFR 63.6640(f)(2), Minn. R. 7011.8150]
EQUI 3 (Standby Generator - Sub 3E)	14	The Permittee may operate the 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, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee 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 Permittee maintains records indication that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. [40 CFR 63.6640(f)(2)(i), Minn. R. 7011.8150]
EQUI 3 (Standby Generator - Sub 3E)	15	This provision remains valid and in effect until revised by the U.S. EPA or until May 1, 2016 (the date which the D.C Circuit Court's mandate to vacate the provision is effective), whichever is earlier. Afterwards, this provision is no longer effective. The Permittee shall not operate according to this provision if vacated or shall operate according to the provision as amended by the U.S. EPA. Emergency stationary RICE may be operated, for no more than 15 hours per calendar year, for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see Section 63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [40 CFR 63.6585(f), 40 CFR 63.6640(f)(2)(ii), Minn. R. 7011.8150]
EQUI 3 (Standby Generator - Sub 3E)	16	This provision remains valid and in effect until revised by the U.S. EPA or until May 1, 2016 (the date which the D.C Circuit Court's mandate to vacate the provision is effective), whichever is earlier. Afterwards, this provision is no longer effective. The Permittee shall not operate according to this provision if vacated or shall operate according to the provision as amended by the U.S. EPA. Emergency stationary RICE may be operated, for no more than 15 hours per calendar year, for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [40 CFR 63.6585(f), 40 CFR 63.6640(f)(2)(iii), Minn. R. 7011.8150]
EQUI 3 (Standby Generator - Sub 3E)	17	Emergency stationary RICE 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 and emergency demand response provided in 40 CFR Section 63.6640(f)(2). 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. [40 CFR 63.6585(f), 40 CFR 63.6640(f)(4), Minn. R. 7011.8150]
EQUI 3 (Standby Generator - Sub 3E)	18	The Permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in 40 CFR Section 63.6640(f)(2)(ii) or (iii), the Permittee must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [40 CFR 63.6655(f), Minn. R. 7011.8150]

Subject Item	Sequence	Description
EQUI 3 (Standby Generator - Sub 3E)	19	The Permittee must maintain all records in a form suitable and readily available for expeditious review according to 40 CFR Section 63.10(b)(1). As specified in 40 CFR Section 63.10(b)(1), the Permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR section 63.10(b)(1). [40 CFR 63.10(b)(1), 40 CFR 63.6660, Minn. R. 7011.8150, Minn. R. 7019.0100, subp. 2(B)]

Subject Item	Sequence	Description
EQUI 9 (Boiler No. 5)	1	The Permittee is authorized to construct and operate Boiler No. 5 within 18 months after permit issuance of Permit No. 00300245-003. The unit shall meet all the requirements of this permit and design specifications submitted in the application for installation of Boiler No. 5 (e.g. EQUI 9). [Minn. R. 7007.0800, subp. 2]
EQUI 9 (Boiler No. 5)	2	The Permittee shall submit a notification of the date construction began : Due 30 calendar days after Date of Construction Start. Submit the name and number of the Subject Item, the design heat input capacity, identification of fuels to be combusted in the unit, and the date construction began. The Permittee shall submit the notification to both the Commissioner and to the U.S. EPA regional office in Chicago. [40 CFR 60.48c(a), 40 CFR 60.7(a)(1), Minn. R. 7007.0800, subp. 16(L), Minn. R. 7011.0570, Minn. R. 7019.0100, subp. 1]
EQUI 9 (Boiler No. 5)	3	The Permittee shall submit a notification of the actual date of initial startup : Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7007.0500, subp. 42a. The Permittee shall submit the notification to both the Commissioner and to the U.S. EPA regional office in Chicago. [40 CFR 60.48c(a), 40 CFR 60.7(a)(3), Minn. R. 7007.0800, subp. 16(L), Minn. R. 7011.0570, Minn. R. 7019.0100, subp. 1]
EQUI 9 (Boiler No. 5)	4	Sulfur Content of Fuel <= 0.05 percent by weight for distillate fuel oil. THIS CONDITION WILL BECOME EFFECTIVE ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
EQUI 9 (Boiler No. 5)	5	Fuel Restriction: The Permittee is authorized to combust natural gas only. THIS CONDITION WILL BE TERMINATED ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Minn. R. 7005.0100, subp. 35a]
EQUI 9 (Boiler No. 5)	6	Fuel Restriction: The Permittee is authorized to combust natural gas or distillate fuel oil meeting the requirements of 40 CFR Section 80.510(c) only. THIS CONDITION WILL BECOME EFFECTIVE ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
EQUI 9 (Boiler No. 5)	7	Fuel Supplier Certification: The Permittee shall obtain and maintain written fuel supplier certification from the fuel supplier for each shipment of distillate fuel oil delivered to the facility. Each fuel certification shall include the following information: the name of the fuel oil supplier; the sulfur content of the fuel oil; and method used to determine the sulfur content of the fuel oil. THIS CONDITION WILL BECOME EFFECTIVE ON THE DATE THE U.S. EPA APPROVES THE REVISION TO THE SIP. [Title I Condition: 40 CFR 50.4(SO2 SIP), Title I Condition: 40 CFR 51, Title I Condition: 40 CFR pt. 52, subp. Y]
EQUI 9 (Boiler No. 5)	8	The Permittee shall keep records of fuel type and usage on a monthly basis by the 28th day of each month. [Minn. R. 7007.0800, subp. 5]
EQUI 9 (Boiler No. 5)	9	This unit is a gas-fired boiler as defined by 40 CFR pt. 63, subp. JJJJJ and is not subject to 40 CFR pt. 63, subp. JJJJJ or any requirements in 40 CFR pt. 63, subp. JJJJJ. A gas-fired boiler is defined in 40 CFR Section 63.11237 as 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 periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year. [40 CFR 63.11195(e), 40 CFR 63.11237, Minn. R. 7011.7055]
EQUI 9 (Boiler No. 5)	10	The affected facility to which 40 CFR pt. 60, subp. Dc 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/hr)) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr). [40 CFR 60.40c(a), Minn. R. 7011.0570]

Subject Item	Sequence	Description
EQUI 9 (Boiler No. 5)	11	Sulfur Content of Fuel <= 0.5 percent by weight for distillate fuel oil or less than or equal to 215 ng/J (0.50 lb/MMBtu) heat input from distillate fuel oil. [40 CFR 60.42c(d), Minn. R. 7011.0570]
EQUI 9 (Boiler No. 5)	12	Fuel Supplier Certification: The Permittee shall determine compliance with the fuel oil sulfur limits based on a certification from the fuel supplier. [40 CFR 60.42c(h), Minn. R. 7011.0570]
EQUI 9 (Boiler No. 5)	13	The sulfur dioxide emission limits and fuel oil sulfur limits under 40 CFR Section 60.42c apply at all times, including periods of startup, shutdown, and malfunction. [40 CFR 60.42c(i), Minn. R. 7011.0570]
EQUI 9 (Boiler No. 5)	14	This unit combusts only natural gas and distillate fuel oil that contains no more than 0.50 weight percent sulfur and therefore is not subject to the particulate matter emission limits under 40 CFR Section 60.43c. The Permittee shall follow the applicable procedures of 40 CFR Section 60.48c(f) to demonstrate compliance under 40 CFR Section 60.43c(e)(4). [40 CFR 60.43c(e)(4), 40 CFR 60.45c(d), Minn. R. 7011.0570]
EQUI 9 (Boiler No. 5)	15	The Permittee shall submit a semiannual compliance report : Due by 31 days after end of each calendar half-year. The semiannual compliance report must contain the following: 1. Calendar dates covered in the reporting period; 2. Records of fuel supplier certification including the name of the fuel oil supplier, a statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR Section 60.41c, and the sulfur content or maximum sulfur content of the oil; and 3. A certified statement signed by the Permittee that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period. This report may be submitted with the Semiannual Deviations Report listed elsewhere in this permit. [40 CFR 60.48c(d), 40 CFR 60.48c(e), 40 CFR 60.48c(j), Minn. R. 7011.0570]
EQUI 9 (Boiler No. 5)	16	Fuel Supplier Certification Requirements: The certification shall include the following information for distillate fuel oil: 1. The name of the oil supplier; 2. A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR Section 60.41c; and 3. The sulfur content of the oil. This certification shall be obtained for each delivery of distillate fuel oil. [40 CFR 60.48c(f)(1), Minn. R. 7011.0570]
EQUI 9 (Boiler No. 5)	17	The Permittee shall record and maintain records of the amount of each fuel combusted in Boiler No. 5 during each operating day; OR The Permittee may elect to record and maintain records of the amount of each fuel combusted in Boiler No. 5 during each calendar month. If this option is chosen, by the last day of each calendar month, the Permittee shall record the amount of each fuel combusted in Boiler No. 5 during the previous calendar month. These records shall consist of purchase records, receipts, or fuel meter readings. [40 CFR 60.48c(g), Minn. R. 7011.0570]

Subject Item	Sequence	Description
EQUI 10 (Emergency Fire Pump)	1	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
EQUI 10 (Emergency Fire Pump)	2	Sulfur Dioxide <= 0.50 pounds per million Btu heat input. The potential to emit from the unit is 0.29 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2]
EQUI 10 (Emergency Fire Pump)	3	Fuel type: Diesel fuel meeting the requirements of 40 CFR Section 80.510(c) only by design. [Minn. R. 7005.0100, subp. 35a]
EQUI 10 (Emergency Fire Pump)	4	Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, limiting operation to 500 hours per year. [Minn. R. 7007.0800, subps. 4-5]
EQUI 10 (Emergency Fire Pump)	5	The Permittee shall keep records of fuel type and usage on a monthly basis by the 28th day of each month. [Minn. R. 7007.0800, subp. 5]
EQUI 10 (Emergency Fire Pump)	6	This unit is an existing affected source as defined under 40 CFR pt. 63, subp. ZZZZ and the facility is an area source as defined at 40 CFR Section 63.2. However, the unit is a commercial emergency stationary RICE that meets the criteria in 40 CFR Section 63.6585(f)(2), so 40 CFR pt. 63, subp. ZZZZ does not apply to this unit. The emergency stationary RICE must meet the definition of an emergency stationary RICE in 40 CFR Section 63.6675, which includes operating according to the provisions specified in 40 CFR Section 63.6640(f). [40 CFR 63.6585(f), Minn. R. 7011.8150]
EQUI 10 (Emergency Fire Pump)	7	The emergency stationary RICE cannot operate or be contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR Section 63.6640(f)(2)(ii) and (iii) and the unit cannot operate for the purpose specified in 40 CFR Section 63.6640(f)(4)(ii). [40 CFR 63.6585(f)(2), Minn. R. 7011.8150]
EQUI 10 (Emergency Fire Pump)	8	The Permittee must install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f), Minn. R. 7011.8150]
EQUI 10 (Emergency Fire Pump)	9	The Permittee must operate the emergency stationary RICE according to the requirements in 40 CFR Section 63.6640(f)(1) through (4). In order for the engine to be considered an emergency stationary RICE under 40 CFR pt. 63, subp. ZZZZ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in nonemergency situations for 50 hours per year, as described in 40 CFR Section 63.6640(f)(1) through (4), is prohibited. If the Permittee does not operate the engine according to the requirements in 40 CFR Section 63.6640(f)(1) through (4), the engine will not be considered an emergency engine under 40 CFR pt. 63, subp. ZZZZ and must meet all requirements for nonemergency engines. [40 CFR 63.6640(f), Minn. R. 7011.8150]
EQUI 10 (Emergency Fire Pump)	10	There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 63.6640(f)(1), Minn. R. 7011.8150]
EQUI 10 (Emergency Fire Pump)	11	The Permittee may operate the emergency stationary RICE for any combination of the purposes specified in 40 CFR Section 63.6640(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR Section 63.6640(f)(3) and (4) counts as part of the 100 hours per calendar year allowed by 40 CFR Section 63.6640(f)(2). [40 CFR 63.6640(f)(2), Minn. R. 7011.8150]

Subject Item	Sequence	Description
EQUI 10 (Emergency Fire Pump)	12	The Permittee may operate the 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, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee 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 Permittee maintains records indication that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. [40 CFR 63.6640(f)(2)(i), Minn. R. 7011.8150]
EQUI 10 (Emergency Fire Pump)	13	This provision remains valid and in effect until revised by the U.S. EPA or until May 1, 2016 (the date which the D.C Circuit Court’s mandate to vacate the provision is effective), whichever is earlier. Afterwards, this provision is no longer effective. The Permittee shall not operate according to this provision if vacated or shall operate according to the provision as amended by the U.S. EPA. Emergency stationary RICE may be operated, for no more than 15 hours per calendar year, for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see Section 63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [40 CFR 63.6585(f), 40 CFR 63.6640(f)(2)(ii), Minn. R. 7011.8150]
EQUI 10 (Emergency Fire Pump)	14	This provision remains valid and in effect until revised by the U.S. EPA or until May 1, 2016 (the date which the D.C Circuit Court’s mandate to vacate the provision is effective), whichever is earlier. Afterwards, this provision is no longer effective. The Permittee shall not operate according to this provision if vacated or shall operate according to the provision as amended by the U.S. EPA. Emergency stationary RICE may be operated, for no more than 15 hours per calendar year, for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [40 CFR 63.6585(f), 40 CFR 63.6640(f)(2)(iii), Minn. R. 7011.8150]
EQUI 10 (Emergency Fire Pump)	15	Emergency stationary RICE 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 and emergency demand response provided in 40 CFR Section 63.6640(f)(2). 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. [40 CFR 63.6585(f), 40 CFR 63.6640(f)(4), Minn. R. 7011.8150]
EQUI 10 (Emergency Fire Pump)	16	The Permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in 40 CFR Section 63.6640(f)(2)(ii) or (iii), the Permittee must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [40 CFR 63.6655(f), Minn. R. 7011.8150]

Subject Item	Sequence	Description
EQUI 10 (Emergency Fire Pump)	17	The Permittee must maintain all records in a form suitable and readily available for expeditious review according to 40 CFR Section 63.10(b)(1). As specified in 40 CFR Section 63.10(b)(1), the Permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR section 63.10(b)(1). [40 CFR 63.10(b)(1), 40 CFR 63.6660, Minn. R. 7011.8150, Minn. R. 7019.0100, subp. 2(B)]

ATTACHMENT 3
POINTS CALCULATOR

(Available Electronically in Tempo Central File)

Points Calculator

1) AQ Facility ID No.: 00300245
 2) Facility Name: BAE Technology Center
 3) Small business? y/n? n
 4) DQ Numbers (including all rolled) : Major: 5307 Minor: 5218
 5) Date of each Application Received: Major: 7/21/15 Minor: 4/28/15
 6) Final Permit No. 00300245-003
 7) Permit Staff Hassan Bouchareb
 8) "Work completed" in which .xls file (i.e. unit 2b, unit 1a, biofuels)?

Total Points	39
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<u>Application Type</u>	<u>DQ No.</u>	<u>Qty.</u>	<u>Points</u>	<u>Total Points</u>	<u>Details</u>
Administrative Amendment			1	0	
Minor Amendment	5218	1	4	4	
Applicability Request			10	0	
Moderate Amendment			15	0	
Major Amendment	5307	1	25	25	
Individual State Permit (not reissuance)			50	0	
Individual Part 70 Permit (not reissuance)			75	0	
Additional Points					
Modeling Review			15	0	
BACT Review			15	0	
LAER Review			15	0	
CAIR/Part 75 CEM analysis			10	0	
NSPS Review	5307	1	10	10	NSPS Subpart Dc
NESHAP Review			10	0	
Case-by-case MACT Review			20	0	
Netting			10	0	
Limits to remain below threshold			10	0	
Plantwide Applicability Limit (PAL)			20	0	
AERA review			15	0	
Variance request under 7000.7000			35	0	
Confidentiality request under 7000.1300			2	0	
EAW review					
Part 4410.4300, subparts 18, item A; and 29			15	0	
Part 4410.4300, subparts 8, items A & B; 10, items A to C; 16, items A & D; 17, items A to C & E to G; and 18, items B & C			35	0	
Part 4410.4300, subparts 4; 5 items A & B; 13; 15; 16, items B & C; and 17 item D			70	0	
				Add'l Points	10

NOTES: