



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY PROGRAM

PLAN APPROVAL

Issue Date: July 28, 2022

Effective Date: July 23, 2026

Revision Date: July 9, 2026

Expiration Date: January 18, 2027

Revision Type: Extension

In accordance with the provisions of the Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, as amended, and 25 Pa. Code Chapter 127, the Owner, [and Operator if noted] (hereinafter referred to as permittee) identified below is authorized by the Department of Environmental Protection (Department) to construct, install, modify or reactivate the air emission source(s) more fully described in the site inventory list. This Facility is subject to all terms and conditions specified in this plan approval. Nothing in this plan approval relieves the permittee from its obligations to comply with all applicable Federal, State and Local laws and regulations.

The regulatory or statutory authority for each plan approval condition is set forth in brackets. All terms and conditions in this permit are federally enforceable unless otherwise designated as "State-Only" requirements.

Plan Approval No. 46-0005BB

Federal Tax Id - Plant Code: 22-1261880-1

Owner Information

Name: MERCK SHARP & DOHME LLC

Mailing Address: 770 SUMNEYTOWN PIKE

PO BOX 4, WP20-205

WEST POINT, PA 19486-8000

Plant Information

Plant: MERCK SHARP & DOHME LLC/WEST PT

Location: 46 Montgomery County

46953 Upper Gwynedd Township

SIC Code: 2834 Manufacturing - Pharmaceutical Preparations

Responsible Official

Name: DARREN O'TOOLE

Title: AVP, GWES PA OPER.

Phone: (267) 245 - 2243

Email: darren_otool@msd.com

Plan Approval Contact Person

Name: MIKE LORENZ

Title: DIR WP SAFETY & ENV

Phone: (215) 652 - 4955

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[Signature] _____

JILLIAN A. GALLAGHER, SOUTHEAST REGION AIR PROGRAM MANAGER



Plan Approval Description

This plan approval is for the following: (1) Construction a new dual fuel-fired boiler, to be designated Boiler 11, rated at 192.7 MMBtu/hr for natural gas and 184.8 MMBtu/hr for No. 2 fuel oil; (2) Decommissioning of Boiler 3 (Source ID 033); (3) Construction of a 175-kW natural gas-fired emergency generator; and, (4) Construction of a new 2-MW natural gas-fired peak shaving generator.



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Note: These same sub-sections are repeated for each source!

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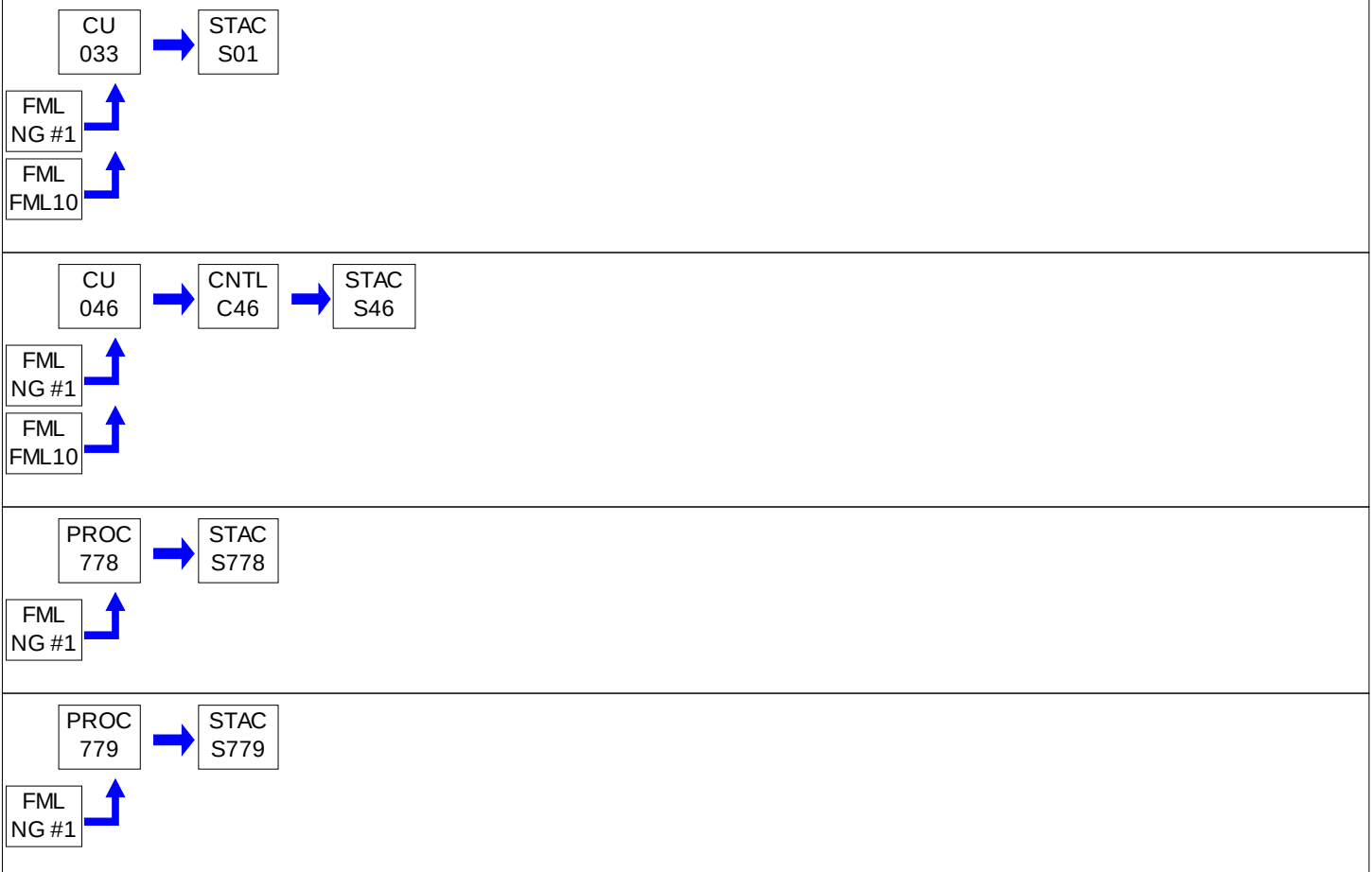
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**SECTION A. Plan Approval Inventory List**

Source ID	Source Name	Capacity/Throughput	Fuel/Material
033	ERIE CITY BOILER 3	112.000 MMBTU/HR	
		850.000 Gal/HR	#2 Oil
		120.000 MCF/HR	Natural Gas
046	BOILER 11	192.700 MMBTU/HR	
		188.922 MCF/HR	Natural Gas
		1,334.300 Gal/HR	#2 Oil
778	175 KW EMERG GEN (B32-2)	2.378 MMBTU/HR	
		2.340 MCF/HR	Natural Gas
779	2-MW PEAK GEN (B78-2)	18.674 MMBTU/HR	
		18.308 MCF/HR	Natural Gas
C46	BOILER 11 SCR		
FML10	TWO (2) 396,600 GAL STORAGE TANKS		
NG #1	NATURAL GAS LINE		
S01	BOILER 3 STACK		
S46	BOILER 11 STACK		
S778	B32-2 EMERG GEN STACK		
S779	2-MW PEAK GEN (B78-2) STACK		

PERMIT MAPS

**SECTION B. General Plan Approval Requirements****#001 [25 Pa. Code § 121.1]****Definitions**

Words and terms that are not otherwise defined in this plan approval shall have the meanings set forth in Section 3 of the Air Pollution Control Act (35 P.S. § 4003) and 25 Pa. Code § 121.1.

#002 [25 Pa. Code § 127.12b (a) (b)]**Future Adoption of Requirements**

The issuance of this plan approval does not prevent the future adoption by the Department of any rules, regulations or standards, or the issuance of orders necessary to comply with the requirements of the Federal Clean Air Act or the Pennsylvania Air Pollution Control Act, or to achieve or maintain ambient air quality standards. The issuance of this plan approval shall not be construed to limit the Department's enforcement authority.

#003 [25 Pa. Code § 127.12b]**Plan Approval Temporary Operation**

This plan approval authorizes temporary operation of the source(s) covered by this plan approval provided the following conditions are met.

(a) When construction, installation, modification, or reactivation is being conducted, the permittee shall provide written notice to the Department of the completion of the activity approved by this plan approval and the permittee's intent to commence operation at least five (5) working days prior to the completion of said activity. The notice shall state when the activity will be completed and when the permittee expects to commence operation. When the activity involves multiple sources on different time schedules, notice is required for the commencement of operation of each source.

(b) Pursuant to 25 Pa. Code § 127.12b (d), temporary operation of the source(s) is authorized to facilitate the shakedown of sources and air cleaning devices, to permit operations pending the issuance of a permit under 25 Pa. Code Chapter 127, Subchapter F (relating to operating permits) or Subchapter G (relating to Title V operating permits) or to permit the evaluation of the air contaminant aspects of the source.

(c) This plan approval authorizes a temporary operation period not to exceed 180 days from the date of commencement of operation, provided the Department receives notice from the permittee pursuant to paragraph (a), above.

(d) The permittee may request an extension of the 180-day shakedown period if further evaluation of the air contamination aspects of the source(s) is necessary. The request for an extension shall be submitted, in writing, to the Department at least 30 days prior to the end of the initial 180-day shakedown period and shall provide a description of the compliance status of the source, a detailed schedule for establishing compliance, and the reasons compliance has not been established. This temporary operation period will be valid for a limited time and may be extended for additional limited periods, each not to exceed 180 days.

(e) The notice submitted by the permittee pursuant to subpart (a) above, prior to the expiration of the plan approval, shall modify the plan approval expiration date on Page 1 of this plan approval. The new plan approval expiration date shall be 180 days from the date of commencement of operation.

#004 [25 Pa. Code § 127.12(a) (10)]**Content of Applications**

The permittee shall maintain and operate the sources and associated air cleaning devices in accordance with good engineering practice as described in the plan approval application submitted to the Department.

#005 [25 Pa. Code §§ 127.12(c) and (d) & 35 P.S. § 4013.2]**Public Records and Confidential Information**

(a) The records, reports or information obtained by the Department or referred to at public hearings shall be available to the public, except as provided in paragraph (b) of this condition.

(b) Upon cause shown by the permittee that the records, reports or information, or a particular portion thereof, but not emission data, to which the Department has access under the act, if made public, would divulge production or sales figures or methods, processes or production unique to that person or would otherwise tend to affect adversely the

**SECTION B. General Plan Approval Requirements**

competitive position of that person by revealing trade secrets, including intellectual property rights, the Department will consider the record, report or information, or particular portion thereof confidential in the administration of the act. The Department will implement this section consistent with sections 112(d) and 114(c) of the Clean Air Act (42 U.S.C.A. § 7412(d) and 7414(c)). Nothing in this section prevents disclosure of the report, record or information to Federal, State or local representatives as necessary for purposes of administration of Federal, State or local air pollution control laws, or when relevant in a proceeding under the act.

#006 [25 Pa. Code § 127.12b]**Plan Approval Terms and Conditions**

[Additional authority for this condition is derived from 25 Pa. Code Section 127.13]

(a) This plan approval will be valid for a limited time, as specified by the expiration date contained on Page 1 of this plan approval. Except as provided in § § 127.11a and 127.215 (relating to reactivation of sources; and reactivation), at the end of the time, if the construction, modification, reactivation or installation has not been completed, a new plan approval application or an extension of the previous approval will be required.

(b) If construction has commenced, but cannot be completed before the expiration of this plan approval, an extension of the plan approval must be obtained to continue construction. To allow adequate time for departmental action, a request for the extension shall be postmarked at least thirty (30) days prior to the expiration date. The request for an extension shall include the following:

- (i) A justification for the extension,
- (ii) A schedule for the completion of the construction

If construction has not commenced before the expiration of this plan approval, then a new plan approval application must be submitted and approval obtained before construction can commence.

(c) If the construction, modification or installation is not commenced within 18 months of the issuance of this plan approval or if there is more than an 18-month lapse in construction, modification or installation, a new plan approval application that meets the requirements of 25 Pa. Code Chapter 127, Subchapter B (related to plan approval requirements), Subchapter D (related to prevention of significant deterioration of air quality), and Subchapter E (related to new source review) shall be submitted. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified.

#007 [25 Pa. Code § 127.32]**Transfer of Plan Approvals**

(a) This plan approval may not be transferred from one person to another except when a change of ownership is demonstrated to the satisfaction of the Department and the Department approves the transfer of the plan approval in writing.

(b) Section 127.12a (relating to compliance review) applies to a request for transfer of a plan approval. A compliance review form shall accompany the request.

(c) This plan approval is valid only for the specific source and the specific location of the source as described in the application.

#008 [25 Pa. Code § 127.12(a)(4) & 35 P.S. § 4008 & § 114 of the CAA]**Inspection and Entry**

(a) Pursuant to 35 P.S. § 4008, no person shall hinder, obstruct, prevent or interfere with the Department or its personnel in the performance of any duty authorized under the Air Pollution Control Act.

(b) The permittee shall also allow the Department to have access at reasonable times to said sources and associated air cleaning devices with such measuring and recording equipment, including equipment recording visual observations, as the Department deems necessary and proper for performing its duties and for the effective enforcement of the Air Pollution Control Act and regulations adopted under the act.

**SECTION B. General Plan Approval Requirements**

(c) Nothing in this plan approval condition shall limit the ability of the Environmental Protection Agency to inspect or enter the premises of the permittee in accordance with Section 114 or other applicable provisions of the Clean Air Act.

#009 [25 Pa. Code 127.13a]**Plan Approval Changes for Cause**

This plan approval may be terminated, modified, suspended or revoked and reissued if one or more of the following applies:

- (a) The permittee constructs or operates the source subject to the plan approval in violation of the act, the Clean Air Act, the regulations promulgated under the act or the Clean Air Act, a plan approval or permit or in a manner that causes air pollution.
- (b) The permittee fails to properly or adequately maintain or repair an air pollution control device or equipment attached to or otherwise made a part of the source.
- (c) The permittee fails to submit a report required by this plan approval.
- (d) The Environmental Protection Agency determines that this plan approval is not in compliance with the Clean Air Act or the regulations thereunder.

#010 [25 Pa. Code §§ 121.9 & 127.216]**Circumvention**

- (a) The permittee, or any other person, may not circumvent the new source review requirements of 25 Pa. Code Chapter 127, Subchapter E by causing or allowing a pattern of ownership or development, including the phasing, staging, delaying or engaging in incremental construction, over a geographic area of a facility which, except for the pattern of ownership or development, would otherwise require a permit or submission of a plan approval application.
- (b) No person may permit the use of a device, stack height which exceeds good engineering practice stack height, dispersion technique or other technique which, without resulting in reduction of the total amount of air contaminants emitted, conceals or dilutes an emission of air contaminants which would otherwise be in violation of this plan approval, the Air Pollution Control Act or the regulations promulgated thereunder, except that with prior approval of the Department, the device or technique may be used for control of malodors.

#011 [25 Pa. Code § 127.12c]**Submissions**

Reports, test data, monitoring data, notifications shall be submitted to the:

Regional Air Program Manager
PA Department of Environmental Protection
(At the address given on the plan approval transmittal letter or otherwise notified)

#012 [25 Pa. Code § 127.12(a)(9) & 40 CFR Part 68]**Risk Management**

- (a) If required by Section 112(r) of the Clean Air Act, the permittee shall develop and implement an accidental release program consistent with requirements of the Clean Air Act, 40 CFR Part 68 (relating to chemical accident prevention provisions) and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act (P.L. 106-40).
- (b) The permittee shall prepare and implement a Risk Management Plan (RMP) which meets the requirements of Section 112(r) of the Clean Air Act, 40 CFR Part 68 and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act when a regulated substance listed in 40 CFR § 68.130 is present in a process in more than the listed threshold quantity at the facility. The permittee shall submit the RMP to the Environmental Protection Agency according to the following schedule and requirements:
 - (1) The permittee shall submit the first RMP to a central point specified by the Environmental Protection Agency no later than the latest of the following:

**SECTION B. General Plan Approval Requirements**

- (i) Three years after the date on which a regulated substance is first listed under § 68.130; or,
- (ii) The date on which a regulated substance is first present above a threshold quantity in a process.

(2) The permittee shall submit any additional relevant information requested by the Department or the Environmental Protection Agency concerning the RMP and shall make subsequent submissions of RMPs in accordance with 40 CFR § 68.190.

(3) The permittee shall certify that the RMP is accurate and complete in accordance with the requirements of 40 CFR Part 68, including a checklist addressing the required elements of a complete RMP.

(c) As used in this plan approval condition, the term "process" shall be as defined in 40 CFR § 68.3. The term "process" means any activity involving a regulated substance including any use, storage, manufacturing, handling, or on-site movement of such substances or any combination of these activities. For purposes of this definition, any group of vessels that are interconnected, or separate vessels that are located such that a regulated substance could be involved in a potential release, shall be considered a single process.

#013 [25 Pa. Code § 121.7]**Prohibition of Air Pollution**

No person may permit air pollution as that term is defined in the Air Pollution Control Act (35 P.S. §§ 4001-4015).

#014 [25 Pa. Code § 127.25]**Compliance Requirement**

A person may not cause or permit the operation of a source subject to § 127.11 (relating to plan approval requirements), unless the source and air cleaning devices identified in the application for the plan approval and the plan approval issued to the source, are operated and maintained in accordance with specifications in the application and conditions in the plan approval issued by the Department. A person may not cause or permit the operation of an air contamination source subject to this chapter in a manner inconsistent with good operating practices.



SECTION C. Site Level Plan Approval Requirements

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

(a) The permittee has elected to restrict the facility's Hazardous Air Pollutants (HAPs), as defined in Section 112b of the Clean Air Act, at the facility to the following, not to exceed in any 12 consecutive month period:

- (1) Any single HAP to less than ten (10) tons; and,
- (2) Total HAPs to less than twenty-five (25) tons.

(b) The facility's site-wide HAP emissions shall be monitored and calculated for individual HAP and total HAP emissions on a monthly basis and on a 12 consecutive month period. The above limits are considered synthetic minor HAP emissions limits for the facility.

(c) The permittee shall notify the Department within thirty (30) days of becoming knowledgeable of exceeding the synthetic minor HAP emission limits indicated in (a), above.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

III. MONITORING REQUIREMENTS.

002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

(a) The following information shall be monitored on a monthly basis for use in demonstrating compliance with the site-wide Hazardous Air Pollutant (HAP) emission limits, found in this Section, of this Permit:

(1) For the Biological Manufacturing area (Source #105) and other biological manufacturing sources (Source 107, 108, 111, 112, and 380), which includes shell freezing, disinfection, and the miscellaneous sources (Source #378) of QC labs and BIO Process vents: - monitor solvent purchases or freezer usage, as described in each of the above listed sources in Section D.

(2) For the Research & Development (R&D) area and the miscellaneous source of Pharmaceutical Testing Lab (Source #378): - monitor the quantity and species of HAP solvent purchases and/or usage.

(3) For the Pharmaceutical Manufacturing area (Pharm), which includes the Waste Alcohol Tanks (Source #749) and the following miscellaneous sources (Source #378), QC Laboratory, material supply sampling, and alcohol tanks: - monitor the number of samples, the number of batches, solvent usage, material usage, or material throughput, as described in each of the above listed sources in Section D, of this permit.

(4) For the Powerhouse area, which includes Boilers #3, 5, 7, 8, 10, and 11 (Source Nos. 033, 035, 041, 042, 045, and 046), two Cogen units (Source Nos. 039 and 043), generators (Sources #150, 152, 153, 381, 383, 732, 733, 734, 735, 736, 737, 738, 740, 741, 744, 745, 746, 747, 748, 751, 753, 754, 755, 756, 758, 759, 761, 762, 763, 764, 765, 766, 767, 768, 770, 775, 778, and 779), and the VOC miscellaneous source (Source #378): - monitor fuel throughput or hours of operation, as described in each of the above listed sources in Section D, of this permit.

(5) For the Maintenance Area, which includes the Paint and Carpentry Shops in Miscellaneous VOC Source (Source #378): - monitor solvent usage or purchases, as described in each of the above listed sources in Section D, of this permit.

(6) For Miscellaneous VOC Sources (Source #378), which include the gasoline tanks and diesel tank, the permittee shall monitor throughput.

(7) For the Water Utilities area, which include Source IDs 750 and 750A, and the diesel fire pump in Misc VOC Sources (Source #378) - monitor the hours of operation, as described in each of the above listed sources in Section D, of this permit.

**SECTION C. Site Level Plan Approval Requirements**

- (8) Source ID 752 - monitor solvent usage or purchases, as described in Section D, of this permit.
- (b) The monitoring required by (a)(1)-(3), above, shall be based upon, but not limited to, the following Department and EPA approved methods:
- (1) Approved test methods;
 - (2) Certified product data sheets; and/or
 - (3) Formulation data from the manufacturer(s).
- (c) Any change in the process specific factors for the sources above will require an operating permit modification.

IV. RECORDKEEPING REQUIREMENTS.**# 003 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

(a) The following information shall be recorded on a monthly basis for use in demonstrating compliance with the site-wide Hazardous Air Pollutant (HAP) emission limits, found in this Section, of this Permit:

- (1) For the Biological Manufacturing area (Source #105) and other biological manufacturing sources (Source 107, 108, 111, 112, and 380), which includes shell freezing, disinfection and the miscellaneous sources (Source #378) of QC labs and BIO Process vents: - HAP emissions shall be calculated using the process specific factors and procedures submitted to the Department on July 17th, 2002, or other Department approved method, and solvent purchases or shell freezer usage, as described in each of the above listed sources in Section D, of this permit.
- (2) For the Research & Development (R&D) area and the miscellaneous source of Pharmaceutical Testing Lab (Source #378): - HAP emissions shall be calculated using the quantity and species of HAP solvents purchased and/or used, and an emission factor for lab activities or other future Department approved method.
- (3) For the Pharmaceutical Manufacturing area (Pharm), which includes the Waste Alcohol Tanks (Source #749) and the following miscellaneous sources (Source #378): QC Laboratory, material supply sampling, and alcohol tanks: - HAP emissions shall be calculated using the most recent version of the Tank ESP program (or other appropriate program), EmitExcel (or other appropriate program), the number of samples or batches, solvent usage, material usage or throughput with site specific emission factors and procedures as submitted to the Department on July 17th, 2002, or other Department approved method, and as described in each of the above listed sources in Section D, of this permit.
- (4) For the Powerhouse area, which includes Boilers #3, 5, 7, 8, 10, and 11 (Source Nos. 033, 035, 041, 042, 045, and 046), two Cogen units (Source Nos. 039 and 043), generators (Sources #150, 152, 153, 381, 383, 732, 733, 734, 735, 736, 737, 738, 740, 741, 744, 745, 746, 747, 748, 751, 753, 754, 755, 756, 758, 759, 761, 762, 763, 764, 765, 766, 767, 768, 770, 775, 778, and 779), and the VOC miscellaneous source (Source #378): - HAP emissions shall be calculated using the source specific emission factors from stack testing, AP-42 emission factors, or EPA revised HAP factors developed for MACT screening along with the monitored fuel throughput or hours of operation, as described in each of the above listed sources in Section D, of this permit.
- (5) For the Maintenance Area, which includes the Paint and Carpentry Shops in Miscellaneous VOC Source (Source #378): - HAP emissions shall be calculated using a source specific emission factor along with solvent purchases or usage, as described in Section D, of this permit.
- (6) For Miscellaneous VOC Sources (Source #378), which include the gasoline tanks and diesel tank: - HAP emissions shall be calculated using the TankESP program (or other appropriate program) and throughput.
- (7) For the Water Utilities area, which includes Source IDs 750 and 750A, and the diesel fire pump in Misc VOC Sources (Source #378) - HAP emissions shall be calculated using AP-42 factors along with hours of operation, as described in each of the above listed sources in Section D, of this permit.
- (8) Source ID 752 - HAP emissions shall be calculated using a source specific emission factor along with solvent

**SECTION C. Site Level Plan Approval Requirements**

purchases or usage, as described in Section D, of this permit.

(b) The recording required by (a)(1)-(3), above, shall be based upon, but not limited to, the following Department and EPA approved methods:

- (1) Approved test methods;
- (2) certified product data sheets; and/or
- (3) formulation data from the manufacturer(s).

(c) Any change in the process specific factors for the sources above will require an operating permit modification.

V. REPORTING REQUIREMENTS.**# 004 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

(a) The permittee shall report malfunctions, emergencies or incidents of excess emissions to the Department at 484-250-5920. A malfunction is any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. An emergency is any situation arising from sudden and reasonably unforeseeable events beyond the control of the owner or operator of a facility which requires immediate corrective action to restore normal operation and which causes the emission source to exceed emissions, due to unavoidable increases in emissions attributable to the situation. An emergency shall not include situations caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.

(b) When the malfunction, emergency or incident of excess emissions poses an imminent danger to the public health, safety, welfare, or environment, it shall be reported to the Department and the County Emergency Management Agency by telephone within one (1) hour after the discovery of the malfunction, emergency or incident of excess emissions. The owner or operator shall submit a written or emailed report of instances of such malfunctions, emergencies or incidents of excess emissions to the Department within three (3) business days of the telephone report.

(c) The report shall describe the following:

- (1) Name, permit or authorization number, and location of the facility;
- (2) Nature and cause of the malfunction, emergency or incident;
- (3) Date and time when the malfunction, emergency or incident was first observed;
- (4) Expected duration of excess emissions;
- (5) Estimated rate of emissions; and
- (6) Corrective actions or preventative measures taken.

(d) Any malfunction, emergency or incident of excess emissions that is not subject to the notice requirements of paragraph (b) of this condition shall be reported to the Department by telephone within 24 hours (or by 4:00 PM of the next business day, whichever is later) of discovery and in writing or by e-mail within five (5) business days of discovery. The report shall contain the same information required by paragraph (c), and any permit specific malfunction reporting requirements.

(e) During an emergency an owner or operator may continue to operate the source at their discretion provided they submit justification for continued operation of a source during the emergency and follow all the notification and reporting requirements in accordance with paragraphs (b)-(d), as applicable, including any permit specific malfunction reporting requirements.

(f) Reports regarding malfunctions, emergencies or incidents of excess emissions shall be submitted to the appropriate DEP Regional Office Air Program Manager.

(g) Any emissions resulted from malfunction or emergency are to be reported in the annual emissions inventory report, if the annual emissions inventory report is required by permit or authorization.

005 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The permittee shall notify the Department within fourteen (14) days of the shut down of Boiler 3 (Source ID 033) that the

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source has been shut down.

VI. WORK PRACTICE REQUIREMENTS.

006 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code § 127.301a(a)(3)(iv)]

Upon startup of Boiler 11 (Source ID 046), Boiler 3 (Source ID 033) shall be shut down within 180 calendar days.

VII. ADDITIONAL REQUIREMENTS.

007 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall comply with the requirements of Section C of Title V Operating Permit No. 46-00005, unless stated otherwise herein this Plan Approval.

008 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

(a) Boiler 3 (Source ID 033) shall be shut down in accordance with this Plan Approval to offset emissions from the newly installed Boiler 11 (Source ID 46) at a ratio of 1:1.

(b) Boiler 3 will generate 3.09 tons per year offsets for NOx and 0.04 tons per year offsets for VOC.

VIII. COMPLIANCE CERTIFICATION.

No additional compliance certifications exist except as provided in other sections of this plan approval including Section B (relating to Plan Approval General Requirements).

IX. COMPLIANCE SCHEDULE.

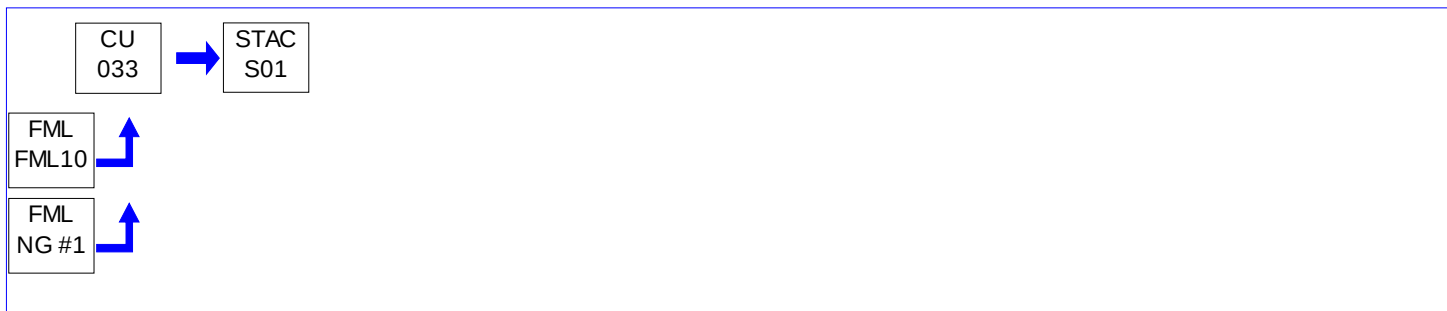
No compliance milestones exist.

**SECTION D. Source Level Plan Approval Requirements**

Source ID: 033

Source Name: ERIE CITY BOILER 3

Source Capacity/Throughput:	112.000 MMBTU/HR	
	850.000 Gal/HR	#2 Oil
	120.000 MCF/HR	Natural Gas

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

VI. WORK PRACTICE REQUIREMENTS.**# 001 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[Additional authority for this permit condition is derived from 25 Pa. Code § 127.301a(a)(3)(iv)]

(a) Upon startup of Boiler 11 (Source ID 046), Boiler 3 (Source ID033) shall be shut down within 180 calendar days.

(b) If Boiler 3 cannot be shut down within the 180 calendar day time frame, upon the permittee's request, the Department may consider giving the permittee an extension for just cause.

(c) If the permittee requests an extension, it must be received by the Department at least 15 calendar days before the end of the 180 day time frame.

**SECTION D. Source Level Plan Approval Requirements****VII. ADDITIONAL REQUIREMENTS.****# 002 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

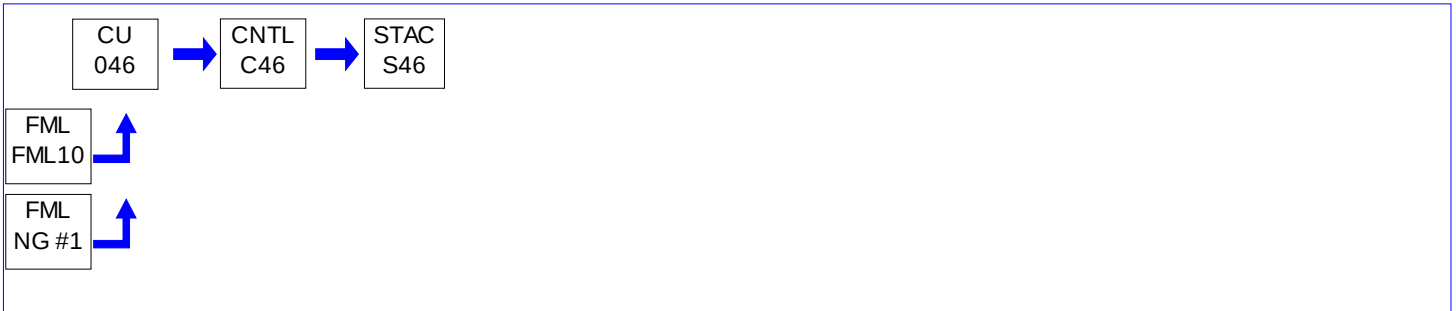
Until Boiler 3 is shut down, Boiler 3 shall comply with all applicable requirements of Title V Operating Permit No. 46-00005.

**SECTION D. Source Level Plan Approval Requirements**

Source ID: 046

Source Name: BOILER 11

Source Capacity/Throughput:	192.700 MMBTU/HR	
	188.922 MCF/HR	Natural Gas
	1,334.300 Gal/HR	#2 Oil

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.11]****Combustion units**

Emissions of filterable particulate matter (PM) from Boiler 11 shall not exceed 0.19 lb/MMBtu, which is calculated from the following:

$$A = 3.6E^{-0.56} \quad \text{where:}$$

A = Allowable emissions in pounds per million Btus of heat input

E = Heat input to the combustion unit in millions of Btus per hour

002 [25 Pa. Code §123.22]**Combustion units**

Emissions of sulfur oxides (SOx) from Boiler 11 shall not exceed 1.2 lb/MMBtu.

003 [25 Pa. Code §123.41]**Limitations**

A person may not permit the emission into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emission is either of the following:

- (a) Equal to or greater than 20% for a period or periods aggregating more than 3 minutes in any 1 hour.
- (b) Equal to or greater than 60% at any time.

[Compliance with this streamlined condition ensures compliance with 40 CFR § 60.43b(f)]

004 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

Ammonia slip from the SCR system shall not exceed 10 ppm.

005 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

[Additional authority for this permit condition is derived from 40 CFR § 60.44b(a) and 25 Pa Code §§ 129.97(g)(1) and 129.100(a)(1)]

This source shall not result in emissions of nitrogen oxides (NOx) more than the following, determined on a 30-day rolling average, where 30-days is 30 consecutive operating days:

- (a) 0.010 lb/MMBtu, when firing natural gas.

**SECTION D. Source Level Plan Approval Requirements**

(b) 0.032 lb/MMBtu, when firing No. 2 fuel oil.

[Compliance with this streamlined permit condition ensures compliance with 40 CFR § 60.44b(a) and 25 Pa Code § 129.97(g)(1)]

006 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The permittee shall comply with the following 12-month emission limits:

(a) Nitrogen Oxides -	9.93 tons per 12-month rolling sum
(b) Carbon Monoxide -	38.35 tons per 12-month rolling sum
(c) Volatile Organic Compounds -	4.50 tons per 12-month rolling sum
(d) Particulate Matter –	8.31 tons per 12-month rolling sum
(e) Sulfur Oxides –	0.98 tons per 12-month rolling sum

Fuel Restriction(s).**# 007 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[Additional authority for this permit condition is derived from 25 Pa. Code § 123.22, 40 CFR § 60.42b(k)(2), and 40 CFR § 63.11210(f)]

(a) This source shall only combust commercially available natural gas and commercially available No. 2 fuel oil as fuel. Propane may only be used as a backup pilot fuel for No. 2 fuel oil combustion.

(b) The sulfur content of the No. 2 fuel oil burned in Boiler 11 shall not exceed 0.0015 percent, by weight.

(c) Usage of No. 2 fuel oil shall be restricted to 1,000,000 gallons per 12-month rolling period.

(d) The boiler load may be restricted pending the boiler load during the initial performance stack testing that is performed on the boiler.

[Compliance with this streamline condition ensures compliance with 40 CFR § 60.42b(k)(2)]

II. TESTING REQUIREMENTS.**# 008 [25 Pa. Code §139.3]****General requirements.**

[Additional authority for this permit condition is derived from 40 CFR § 60.8, § 60.46b(j)(14), and § 60.49b(b)]

(a) Within 60 days after achieving the maximum production rate at which Boiler 11 will be operated, but not later than 180 days after initial startup of Boiler 11, the permittee shall perform an initial performance test for the following, as outlined under Testing Requirements for this source: NO_x, CO, total PM (both filterable and condensable), and SO_x (for fuel oil only), all in lbs/MMBtu, opacity, and ammonia slip (in ppm).

(b) All stack testing required while burning natural gas shall be performed at the same time, simultaneously. The same applies to all stack testing that is required while burning No. 2 fuel oil. The permittee may choose which fuel to start with when performing the required testing.

(c) Performance tests shall be conducted while the source is operating at maximum routine operating conditions or under such other conditions, within the capacity of the equipment, as may be requested by the EPA Administrator or DEP. Refer to PADEP Source Testing Program website online for further information related to source testing including Source Testing FAQ and the PADEP Source Testing Manual.

(d) All stack testing shall be performed in accordance with the provisions of Chapter 139 and with all applicable EPA reference method test procedures.

**SECTION D. Source Level Plan Approval Requirements**

(e) At least ninety (90) days prior to the test, the permittee shall submit to the PSIMS Administrator in Central Office for approval the procedures for the test and a sketch with dimensions indicating the location of sampling ports and other data to ensure the collection of representative samples.

(f) At least thirty (30) days prior to the test, the EPA Administrator, the Regional Air Quality Manager, and the PSIMS Administrator in Central Office shall be informed of the date and time of the test.

(g) Within sixty (60) days after completion of each performance test, copies of each performance test report, which includes all operating conditions, shall be submitted to the EPA Administrator, the Regional Air Quality Manager, and the PSIMS Administrator in Central Office for approval.

(h) The permittee shall submit an electronic copy of all source test submissions (notifications, protocols, reports, supplemental information, etc.) to the EPA Administrator, the AQ Program Manager for the Southeast Regional Office, and the PSIMS Administrator in Central Office. Email addresses are provided below for the PSIMS Administrator and the Southeast Regional Office:

Central Office
RA-EPstacktesting@pa.gov

Southeast Region
RA-EPSEstacktesting@pa.gov

The relative accuracy test audit (i.e., reference method) data and performance test (i.e., compliance test) data, except opacity data, shall be submitted electronically to EPA's Central Data Exchange (CDX) by using the Electronic Reporting Tool (ERT) (see http://www.epa.gov/ttn/chief/ert/ert_tool.html) or other compatible electronic spreadsheet. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFIRE database.

(i) The permittee shall submit to the EPA Administrator and DEP the performance test data from the initial performance test and the performance evaluation of the NO_x CEMS using the applicable performance specifications in Appendix B of 40 CFR Part 60. The permittee shall submit to the EPA Administrator and DEP the maximum heat input capacity data from the demonstration of the maximum heat input capacity of the boiler.

(j) In the event that any of the above deadlines cannot be met, the permittee may request an extension for the due date(s) in writing and include a justification for the extension. The Department may grant an extension for a reasonable cause.

009 [25 Pa. Code §139.3]**General requirements.**

[Additional authority for this permit condition is derived from 40 CFR § 60.46b(c)]

(a) While combusting No. 2 fuel oil, the permittee shall perform stack testing to determine compliance with the applicable lb/MMBtu emission limit for NO_x. The permittee shall perform three valid runs, 1-hr each, using EPA Method 7E.

(b) While combusting natural gas, NO_x shall be monitored for 30 successive steam generating unit operating days using a permanently installed certified Continuous Emissions Monitoring System for NO_x and the 30-day average emission rate shall be used to determine compliance with the applicable lb/MMBtu NO_x emission limit. The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period. This performance test must be COMPLETED within the 180 day time frame from when the source begins to operate.

010 [25 Pa. Code §139.3]**General requirements.**

[Additional authority for this permit condition is derived from 25 Pa. Code § 123.11]

(a) The permittee shall perform an initial performance test for total PM (filterable and condensable), using EPA Methods 5 and 202 (or approved alternatives) while solely burning No. 2 fuel oil and separately while solely burning natural gas.

**SECTION D. Source Level Plan Approval Requirements**

(b) The stack test shall be used to determine total emissions of PM (filterable and condensable) and also to determine compliance with the emission limit of 0.19 lb/MMBtu, based on filterable PM only.

011 [25 Pa. Code §139.3]**General requirements.**

[Additional authority for this permit condition is derived from 25 Pa Code § 127.12b]

(a) The permittee shall perform an initial performance test for CO using EPA Method 10 (or an approved alternative) while solely burning No. 2 fuel oil and separately while solely burning natural gas.

(b) The permittee shall perform an initial performance test for SO_x using EPA Conditional Test Method CTM-013A (or an approved alternative) while burning No. 2 fuel oil only.

(c) The permittee shall perform an initial performance test of opacity using EPA Method 9 while solely burning No. 2 fuel oil and separately while solely burning natural gas.

(d) The permittee shall perform an initial performance test ammonia slip using EPA Method 320, CTM-027, or an alternate method approved by DEP, while solely burning No. 2 fuel oil and separately while solely burning natural gas.

III. MONITORING REQUIREMENTS.**# 012 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

As pertains to the Selective Catalytic Reduction (SCR) unit, the following shall be monitored on a continuous basis:

- (a) The amount of reagent injected into the SCR unit;
- (b) The temperature prior to the SCR unit; and,
- (c) The pressure drop across the catalyst bed.

013 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

[Additional authority for this permit condition is derived from 25 Pa Code § 139.52]

(a) The CEMS for NO_x and O₂ (or CO₂) and the COMS for opacity shall be installed, approved by the Department, operated, and maintained in accordance with the requirements of 25 Pa. Code Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources), and the "Submittal and Approval", "Record Keeping and Reporting", and "Quality Assurance" requirements of the latest revision of the Department's Continuous Source Monitoring Manual, 274-0300-001.

(b) Compliance with any subsequently issued revisions to the Continuous Source Monitoring Manual will constitute compliance with the regulations.

014 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

[Additional authority for this permit condition is derived from 40 CFR § 60.49b(d)]

(a) Boiler 11 shall be equipped with instrumentation to track fuel usage of natural gas and No. 2 fuel oil.

(b) Fuel usage of natural gas and No. 2 fuel oil shall be monitored on a monthly basis.

015 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

[Additional authority for this permit condition is derived from 40 CFR § 63.11223(c)]

(a) Boiler 11 shall be equipped with an oxygen trim system that monitors and maintains an optimum air-to-fuel ratio.

**SECTION D. Source Level Plan Approval Requirements**

(b) The oxygen level shall not be set any lower than the oxygen concentration measured during the most recent tune-up.

016 [25 Pa. Code §139.103]**Opacity monitoring requirements.**

(a) Opacity measurements shall be converted to represent plume opacity as described in the Department's Continuous Source Monitoring Manual. The conversion method shall be approved by the Department.

(b) Opacity monitoring systems shall meet at least one of the following minimum data availability requirements unless other data availability requirements are stipulated elsewhere in this permit for a particular process:

(1) At least 90% of the hours in each calendar month shall be valid hours as set forth in the Department's Continuous Source Monitoring Manual; and,

(2) At least 95% of the hours in each calendar quarter shall be valid hours as set forth in the quality assurance section of the Department's Continuous Source Monitoring Manual.

(c) This condition assists in the demonstration of compliance with the opacity restriction for this boiler.

017 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.48b]**Subpart Db - Standards of Performance for Industrial- Commercial-Institutional Steam Generating Units****Emission monitoring for particulate matter and nitrogen oxides.**

The permittee shall install, calibrate, maintain, and operate a continuous opacity monitoring system (COMS) for measuring the opacity of emissions discharged to the atmosphere from this source.

018 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.48b]**Subpart Db - Standards of Performance for Industrial- Commercial-Institutional Steam Generating Units****Emission monitoring for particulate matter and nitrogen oxides.**

(a) The permittee shall install, calibrate, maintain, and operate a continuous emissions monitoring systems (CEMS) for measuring NOX and O2 (or CO2) emissions discharged to the atmosphere from this source.

(b) The CEMS shall be operated during all periods of operation of this source except for CEMS breakdowns and repairs.

(c) The procedures under 40 CFR § 60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems.

(d) The NOx span for the CEMS for natural gas and fuel oil shall be determined in accordance with 40 CFR 60.48(e).

IV. RECORDKEEPING REQUIREMENTS.**# 019 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

As pertains to the Selective Catalytic Reduction (SCR) unit, the following shall be recorded on a continuous basis:

(a) The amount of reagent injected into the SCR unit;

(b) The temperature prior to the SCR unit; and,

(c) The pressure drop across the catalyst bed.

020 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The permittee shall calculate and record emissions of NOx, CO, VOC, PM (total), and SOx on a monthly basis and as a 12-month rolling sum.

021 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

[Additional authority for this permit condition is derived from 40 CFR § 60.49b(d)]

**SECTION D. Source Level Plan Approval Requirements**

The permittee shall record and maintain records of the amount of each fuel combusted during each calendar month.

[Compliance with this streamlined condition ensures compliance with 40 CFR §§ 63.11210(f) and 63.11223(b)(6)(iii)]

022 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code § 123.22, 40 CFR § 60.49b(r) and 40 CFR § 63.11210(f)]

(a) The permittee shall obtain and maintain at the affected facility fuel receipts (such as a current, valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that the No. 2 fuel oil complies with the sulfur content limit applicable to this source.

(b) Reports required per 40 CFR Part 60 (Subpart Db) and 40 CFR Part 63 (Subpart JJJJJ) shall be submitted to the EPA Administrator and DEP certifying that only ultra-low-sulfur liquid fuel and natural gas were combusted in Boiler 11 during the reporting period.

023 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this permit condition is derived from 40 CFR §§ 60.49b(o) and 63.11225(d)]

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

024 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.45b]

Subpart Db - Standards of Performance for Industrial- Commercial-Institutional Steam Generating Units

Compliance and performance test methods and procedures for sulfur dioxide.

[Additional authority for this permit condition is derived from 40 CFR §§ 60.45b(j)]

The permittee shall maintain on site fuel receipts (such as a current, valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that the fuel oil meets the applicable sulfur content limit of 0.3 percent by weight.

025 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.48b]

Subpart Db - Standards of Performance for Industrial- Commercial-Institutional Steam Generating Units

Emission monitoring for particulate matter and nitrogen oxides.

The owner or operator of this source shall maintain records of data generated by the continuous opacity monitoring system (COMS) for opacity in a format that demonstrates compliance with the opacity restrictions for this source.

026 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.48b]

Subpart Db - Standards of Performance for Industrial- Commercial-Institutional Steam Generating Units

Emission monitoring for particulate matter and nitrogen oxides.

[Additional authority for this permit condition is derived from 40 CFR § 60.13(h)(2)]

(a) The owner or operator of this source shall maintain records of data generated by the continuous emissions monitoring systems (CEMS) for NO_x and O₂ (or CO₂) in a format that demonstrates compliance with the lb/MMBtu NO_x restrictions for this source.

(b) The CEMS shall record data during all periods of operation of this source except for CEMS breakdowns and repairs. Data shall be recorded during calibration checks, and zero and span adjustments.

(c) The 1-hour average NO_x emission rates measured by the continuous NO_x CEMS shall be expressed in lb/MMBtu heat input and shall be used to calculate the 30-day rolling average for NO_x emissions. The 1-hour averages shall be computed

**SECTION D. Source Level Plan Approval Requirements**

as follows:

- (1) Except as provided under paragraph (c)(3), below, for a full operating hour (any clock hour with 60 minutes of unit operation), at least four valid data points are required to calculate the hourly average, i.e., one data point in each of the 15-minute quadrants of the hour.
 - (2) Except as provided under paragraph (c)(3), below, for a partial operating hour (any clock hour with less than 60 minutes of unit operation), at least one valid data point in each 15-minute quadrant of the hour in which the unit operates is required to calculate the hourly average.
 - (3) For any operating hour in which required maintenance or quality-assurance activities are performed:
 - (i) If the unit operates in two or more quadrants of the hour, a minimum of two valid data points, separated by at least 15 minutes, is required to calculate the hourly average; or,
 - (ii) If the unit operates in only one quadrant of the hour, at least one valid data point is required to calculate the hourly average.
 - (4) If a daily calibration error check is failed during any operating hour, all data for that hour shall be invalidated, unless a subsequent calibration error test is passed in the same hour and the requirements of paragraph (c)(3), above, are met, based solely on valid data recorded after the successful calibration.
 - (5) For each full or partial operating hour, all valid data points shall be used to calculate the hourly average.
 - (6) Data recorded during periods of continuous monitoring system breakdown, repair, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph.
 - (7) Either arithmetic or integrated averaging of all data may be used to calculate the hourly averages. The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O₂ or ng/J of pollutant).
- (d) When NO_x emission data is not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, EPA's Stack Test Method 7, EPA's Stack Test Method 7A, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.

027 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.49b]
Subpart Db - Standards of Performance for Industrial- Commercial-Institutional Steam Generating Units
Reporting and recordkeeping requirements.

The permittee shall maintain records of the following information for each steam generating unit operating day:

- (a) Calendar date;
- (b) The average hourly NO_x emission rates (expressed as NO₂) (lb/MMBtu heat input) measured or predicted;
- (c) The 30-day average NO_x emission rates (lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days;
- (d) Identification of the steam generating unit operating days when the calculated 30-day average NO_x emission rates are in excess of the lb/MMBtu NO_x emissions standards, with the reasons for such excess emissions as well as a description of corrective actions taken;
- (e) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;

**SECTION D. Source Level Plan Approval Requirements**

- (f) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;
- (g) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;
- (h) Identification of the times when the pollutant concentration exceeded full span of the CEMS;
- (i) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3 of 40 CFR Part 60, Appendix B; and,
- (j) Results of daily CEMS drift tests and quarterly accuracy assessments as required under Appendix F of 40 CFR Part 60, Procedure 1.

028 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.11223]**Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources****How do I demonstrate continuous compliance with the work practice and management practice standards?**

The permittee shall maintain on-site and submit, if requested by EPA or DEP, a report containing the following information:

- (a) The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler.
- (b) A description of any corrective actions taken as a part of the tune-up of the boiler.
- (c) The type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.

029 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.11225]**Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources****What are my notification, reporting, and recordkeeping requirements?**

The permittee shall maintain the following records:

- (a) A copy of each notification and report that you submitted to comply with 40 CFR Part 60, Subpart JJJJJJ, and all documentation supporting the Initial Notification that was submitted.
- (b) Records of 5-year tune-ups, including the following information:
 - (1) Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned.
 - (2) The permittee must keep records, on a monthly basis, of the type of fuel combusted.
- (c) Records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment.
- (d) Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.

V. REPORTING REQUIREMENTS.**# 030 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[Additional authority for this permit condition is derived from 25 Pa. Code §§ 139.101(1)(iv), 139.101(10) and 139.101(12) and 40 CFR § 60.49b(i) and (v)]

**SECTION D. Source Level Plan Approval Requirements**

- (a) The permittee shall submit quarterly reports of continuous emission monitoring to the EPA Administrator and DEP in accordance with the requirements established in 25 Pa. Code, Chapter 139, Subchapter C, the reporting requirements in the most currently approved revision of the Department's Continuous Source Monitoring Manual, and the reporting requirements established in 40 CFR 60, Subpart Db.
- (b) The report is due within thirty (30) days after the end of each calendar quarter and shall cover all periods of operation, including startup, shutdown, and malfunction.
- (c) Failure to submit the required CEM reports within the time period specified in this condition shall constitute violations of this permit, unless approved in advance by the Department in writing.
- (d) Compliance with any subsequently issued revision to the Continuous Source Monitoring Manual will constitute compliance with this permit condition.

**# 031 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.49b]
Subpart Db - Standards of Performance for Industrial- Commercial-Institutional Steam Generating Units
Reporting and recordkeeping requirements.**

[Additional authority for this permit condition is derived from 40 CFR § 60.7]

The permittee shall submit notification of the date of initial startup of Boiler 11 to the EPA Administrator and DEP, postmarked within 15 days after such date. This notification shall include:

- (a) The design heat input capacity of Boiler 11 and identification of the fuels to be combusted; and,
- (b) The annual capacity factor at which the owner or operator anticipates operating the facility based on all fuels fired and based on each individual fuel fired.

**# 032 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.49b]
Subpart Db - Standards of Performance for Industrial- Commercial-Institutional Steam Generating Units
Reporting and recordkeeping requirements.**

- (a) The permittee shall submit excess emission reports to the EPA Administrator and DEP for the NO_x CEMS and COMS (opacity) for any excess emissions that occurred during the reporting period.
- (b) The reporting period for the reports required under 40 CFR Part 60, Subpart Db, is each 6-month period. All reports shall be postmarked by the 30th day following the end of the reporting period.

**# 033 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.11225]
Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources
What are my notification, reporting, and recordkeeping requirements?**

An Initial Notification for 40 CFR Part 63, Subpart JJJJJJ, must be submitted to the EPA Administrator and DEP within 120 days after Boiler 11 begins operation.

VI. WORK PRACTICE REQUIREMENTS.

**# 034 [25 Pa. Code §127.12b]
Plan approval terms and conditions.**

[Additional authority for this permit condition is derived from 40 CFR § 63.11205(a)]

At all times the permittee shall operate and maintain this source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.

**# 035 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.11201]
Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources
What standards must I meet?**

**SECTION D. Source Level Plan Approval Requirements**

[Additional authority for this permit condition is derived from 40 CFR § 63.11223]

(a) The permittee shall conduct a tune-up of the boiler every 5 years. The following shall be performed by a qualified person:

- (1) Inspect each burner, and clean or replace any components of the burner as necessary (this may be delayed until the next scheduled unit shutdown, not to exceed 72 months from the previous inspection).
- (2) Inspect the flame pattern and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.
- (3) Inspect the system controlling the air-to-fuel ratio and ensure that it is correctly calibrated and functioning properly (this may be delayed until the next scheduled unit shutdown, not to exceed 72 months from the previous inspection).
- (4) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject.
- (5) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.

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

(c) During the tune-up, the oxygen level shall be set on the oxygen trim system to be no lower than the oxygen concentration measured during the most recent tune-up.

(d) Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up.

(e) The first 5-year tune-up must be no later than 61 months after the initial startup of the new boiler.

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

VII. ADDITIONAL REQUIREMENTS.

036 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

DEP reserves the right to re-evaluate the necessity for additional monitoring tools for ensuring that ammonia slip remains below 10 ppm, pending results from performance stack testing.

037 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

(a) Boiler 11 is a dual fuel-fired boiler, rated at 192.7 MMBtu/hr for natural gas and 184.8 MMBtu/hr for No. 2 fuel oil. Boiler 11 is manufactured by Rentech Boiler Systems, Model DFB-DTB.

(b) Boiler 11 shall be equipped with low NOx burner, flue gas recirculation system, oxygen trim system, and selective catalytic reduction (SCR).

038 [25 Pa. Code §129.201]

Boilers

(a) By October 31 of each year, the owner or operator of the boiler shall calculate the difference between the actual emissions from the unit for the period from May 1 through September 30 and the allowable emissions for that period.

(b) The owner or operator shall calculate allowable emissions by multiplying the unit's cumulative heat input for the period by the following applicable emission rates:

**SECTION D. Source Level Plan Approval Requirements**

(1) For a boiler firing natural gas or a boiler firing a noncommercial gaseous fuel, 0.10 pounds NO_x per million Btu heat input.

(2) For a boiler firing solid or liquid fuel, 0.20 pounds of NO_x per million Btu heat input.

039 [25 Pa. Code §129.204]**Emission accountability.**

The permittee shall determine actual emissions in accordance with the CEMS data reported to the Department. Any data invalidated under 25 Pa. Code, Chapter 139 (relating to sampling and testing) shall be substituted with data calculated using the potential emission rate for the unit or, if approved by the Department in writing, an alternative amount of emissions that is more representative of actual emissions that occurred during the period of invalid data.

040 [25 Pa. Code §129.204]**Emission accountability.**

(a) The permittee shall surrender to the Department one NO_x allowance and one Ozone Season allowance for each ton of NO_x by which the combined actual emissions exceed the allowable emissions of this source from May 1 through September 30. The surrendered NO_x allowances shall be of current year vintage. For the purpose of determining the amount of allowance to surrender, any remaining fraction of a ton equal to or greater than 0.50 ton is deemed to equal 1 ton and any fraction of a ton less than 0.50 ton is deemed to equal zero tons.

(b) If the combined allowable emissions from units subject to 25 Pa. Code § 129.204 at a facility from May 1 through September 30 exceed the combined actual emissions from same units at the facility during the same period, the permittee may deduct the difference or any portion of the difference from the amount of actual emissions from units subject to this section at the permittee's other facilities.

(c) By November 1 of each year, the permittee shall surrender the required NO_x allowances to the Department's designated NO_x allowance tracking system account and provide to the Department, in writing, the following;

(1) The serial number of each NO_x allowance surrendered; and,

(2) The calculations used to determine the quantity of NO_x allowances required to be surrendered.

(d) If the permittee fails to comply with (c), above, the permittee shall by December 31 surrender three (3) NO_x allowances of the current or later year vintage for each NO_x allowance that was required to be surrendered by November 1 of that year.

(e) The surrender of NO_x allowances under (d), above, does not affect the liability of the permittee for any fine, penalty or assessment, or an obligation to comply with any other remedy for the same violation, under the CAA or the act.

(1) For purposes of determining the number of days of violation, if a facility has excess emissions for the period May 1 through September 30, each day in that period (153 days) constitutes a day in violation unless the permittee demonstrates that a lesser number of days should be considered.

(2) Each ton of excess emissions is a separate violation.

[Note: On July 6, 2011, EPA promulgated the Cross-State Air Pollution Rule (CSAPR) to replace CAIR. The CSAPR provisions of 40 CFR Part 97, Subpart AAAAA (relating to CSAPR NO_x Annual Trading Program), replaced the provisions of 40 CFR Part 96, Subpart AA (relating to CAIR NO_x Annual Trading Program General Provisions), and remain in effect. On October 26, 2016, EPA promulgated the CSAPR Update to establish the provisions of 40 CFR Part 97, Subpart EEEEE (relating to CSAPR NO_x Ozone Season Group 2 Trading Program), to replace the previously-established CAIR NO_x Ozone Season Trading Program and CSAPR NO_x Ozone Season Group 1 Trading Program for certain states, including Pennsylvania, beginning with the 2017 ozone season. On April 30, 2021, EPA promulgated the Revised CSAPR Update to establish the provisions of 40 CFR Part 97, Subpart GGGGG (relating to CSAPR NO_x Ozone Season Group 3 Trading Program), to replace the provisions of 40 CFR Part 97, Subpart EEEEE, for certain states, including Pennsylvania, beginning with the 2021 ozone season (though DEP will accept CSAPR NO_x Ozone Season Group 2 allowances of current year vintage from other states, if available). Accordingly, the permittee shall surrender CSAPR NO_x Annual allowances and either CSAPR NO_x Ozone Season Group 2 allowances or CSAPR NO_x Ozone Season Group 3 allowances, as defined in 40 CFR

**SECTION D. Source Level Plan Approval Requirements**

§§ 97.402, 97.802, and 97.1002, respectively, instead of the CAIR NO_x allowances and CAIR NO_x Ozone Season allowances indicated in 25 Pa. Code § 129.204(c), as the latter are no longer available.]

041 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.42b]**Subpart Db - Standards of Performance for Industrial- Commercial-Institutional Steam Generating Units
Standard for sulfur dioxide.**

Units firing only very low sulfur oil, gaseous fuel, a mixture of these fuels, or a mixture of these fuels with any other fuels with a potential SO₂ emission rate of 140 ng/J (0.32 lb/MMBtu) heat input or less are exempt from the SO₂ emissions limit in 40 CFR § 60.42b(k)(1).

042 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.11223]**Subpart JJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources****How do I demonstrate continuous compliance with the work practice and management practice standards?**

Boilers with an oxygen trim system that maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune-up must conduct a tune-up of the boiler every 5 years as specified in paragraphs (b)(1) through (7) of 40 CFR § 63.11223.

**SECTION D. Source Level Plan Approval Requirements**

Source ID: 778

Source Name: 175 KW EMERG GEN (B32-2)

Source Capacity/Throughput:

2.378 MMBTU/HR

2.340 MCF/HR

Natural Gas

**I. RESTRICTIONS.****Emission Restriction(s).**

001 [25 Pa. Code §123.13]

Processes

Particulate matter emissions from this engine shall not exceed 0.04 gr/dscf at any time.

002 [25 Pa. Code §123.21]

GeneralNo person may permit the emission into the outdoor atmosphere of sulfur oxides from this source in a manner that the concentration of the sulfur oxides, expressed as SO₂, in the effluent gas exceeds 500 ppmvd.**Fuel Restriction(s).**

003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this permit condition is derived from 40 CFR §§ 60.4241(d) and 60.4243(e)]

This source shall only operate on natural gas, except that propane may be allowed as follows:

(a) The permittee may operate this source using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations.

(b) If propane is used for more than 100 hours per year, the permittee shall conduct a performance test to demonstrate compliance with the short-term emission limits for NO_x, CO, and VOC.**Operation Hours Restriction(s).**

004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Operating hours for this source shall not exceed 300 hours in any 12-consecutive month period.

II. TESTING REQUIREMENTS.

005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4243]

Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines**What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?**

[Additional authority for this permit condition is derived from 40 CFR § 60.4245]

(a) If the permittee does not operate and maintain Source ID 778 according to the manufacturer's emission-related written instructions, the permittee must conduct an initial performance test to demonstrate compliance with the applicable emission limits contained herein this operating permit within 1 year of startup.

(b) If performance testing is conducted on Source ID 778, performance testing shall be conducted in accordance with 40 CFR § 60.4244.

**SECTION D. Source Level Plan Approval Requirements**

(c) If performance testing is conducted on Source ID 778, the permittee must submit a copy of each performance test as conducted in accordance with 40 CFR § 60.4244 within 60 days after the test has been completed.

III. MONITORING REQUIREMENTS.

006 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Source ID 778 shall be equipped with a non-resettable meter to monitor hours of operation.

IV. RECORDKEEPING REQUIREMENTS.

007 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this permit condition is derived from 40 CFR § 60.4243]

(a) The permittee shall keep records of the operation of this source in emergency and non-emergency service that is recorded through the non-resettable hour meter. The permittee shall record the time of operation and the reason the engine was in operation during that time.

(b) Hours of operation shall be recorded monthly and on a 12-month rolling basis.

(c) If this source uses propane, the hours of operation while using propane shall be recorded separately, both on a monthly and a 12-consecutive month basis, but also included in the total hours of operation for this source.

008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4245]

Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?

[Additional authority for this permit condition is derived from 40 CFR § 60.4243]

(a) The permittee shall keep records of the following information:

- (1) All notifications submitted to comply with 40 CFR Part 60, Subpart JJJJ, and all documentation supporting any notification.
- (2) Maintenance conducted on the engine.
- (3) Documentation that the engine meets the short-term emission limits for NO_x, CO, and VOC.

(b) If the permittee does not operate and maintain Source ID 778 according to the manufacturer's emission-related written instructions, the permittee must keep a maintenance plan and records of conducted maintenance to demonstrate compliance.

V. REPORTING REQUIREMENTS.

009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4245]

Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?

If Source ID 778 is used to supply power as part of a financial arrangement with another entity, as allowed under § 60.4243(d)(3)(i), the permittee shall submit an annual report according to the requirements in paragraphs (a) through (c) of this condition.

(a) The report must contain the following information:

**SECTION D. Source Level Plan Approval Requirements**

- (1) Company name and address where the engine is located.
 - (2) Date of the report and beginning and ending dates of the reporting period.
 - (3) Engine site rating and model year.
 - (4) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.
 - (5) Hours spent for operation for the purposes specified in 40 CFR § 60.4243(d)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in 40 CFR § 60.4243(d)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.
- (b) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.
- (c) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in 40 CFR § 60.4.

VI. WORK PRACTICE REQUIREMENTS.**# 010 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[Additional authority for this permit condition is derived from 40 CFR § 60.4243]

The permittee shall maintain and operate the engine in a manner consistent with good air pollution control practice and in accordance with Merck's established generator preventive maintenance program.

011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4233]**Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines****What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?**

[Additional authority for this permit condition is derived from 25 Pa. Code § 127.12b]

This engine shall be certified to meet the following emission rates, applicable to emergency generators:

- | | |
|---|------------------|
| (a) Nitrogen Oxide (NO _x) - | 2.0 g/hp-hr; |
| (b) Volatile Organic Compounds (VOC) - | 1.0 g/hp-hr; and |
| (c) Carbon Monoxide (CO) - | 4.0 g/hp-hr. |

012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4243]**Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines****What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?**

(a) Source ID 778 may be operated for up to a maximum of 100 hours per year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(b) Source ID 778 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 paragraph (a), above. Except as provided in paragraph (c) of this condition, 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

**SECTION D. Source Level Plan Approval Requirements**

another entity.

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

- (1) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;
- (2) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
- (3) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
- (4) The power is provided only to the facility itself or to support the local transmission and distribution system.
- (5) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

(d) On May 1, 2015, the United States Court of Appeals for the DC Circuit vacated 40 CFR §§ 60.4243(d)(2)(ii) – (iii). Until the vacated conditions are revised, Source ID 778 may NOT be operated for emergency demand response or for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

VII. ADDITIONAL REQUIREMENTS.

013 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

This source is a 4-stroke, lean-burn, natural gas fired Caterpillar engine, Model Number DG175, rated 267 bhp. The engine will power a 175 kW generator that will be used for emergency use for Building 32.

**SECTION D. Source Level Plan Approval Requirements**

Source ID: 779

Source Name: 2-MW PEAK GEN (B78-2)

Source Capacity/Throughput:

18.674 MMBTU/HR

18.308 MCF/HR

Natural Gas

**I. RESTRICTIONS.****Emission Restriction(s).**

001 [25 Pa. Code §123.13]

Processes

Particulate matter emissions from this engine shall not exceed 0.04 gr/dscf at any time.

002 [25 Pa. Code §123.21]

GeneralNo person may permit the emission into the outdoor atmosphere of sulfur oxides from this source in a manner that the concentration of the sulfur oxides, expressed as SO₂, in the effluent gas exceeds 500 ppmvd.**Fuel Restriction(s).**

003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

This engine shall only operate on natural gas.

Operation Hours Restriction(s).

004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Operating hours for this engine shall not exceed 500 hours in any 12-consecutive month period.

II. TESTING REQUIREMENTS.

005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4243]

Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines**What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?**

[Additional authority for this permit condition is derived from 40 CFR § 60.4245]

(a) If the permittee does not operate and maintain Source ID 779 according to the manufacturer's emission-related written instructions, the permittee must conduct an initial performance test to demonstrate compliance with the applicable emission limits contained herein this operating permit within 1 year of startup.

(b) If performance testing is conducted on Source ID 779, performance testing shall be conducted in accordance with 40 CFR § 60.4244.

(c) If performance testing is conducted on Source ID 779, the permittee must submit a copy of each performance test as conducted in accordance with 40 CFR § 60.4244 within 60 days after the test has been completed.

**SECTION D. Source Level Plan Approval Requirements****III. MONITORING REQUIREMENTS.****# 006 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The engine associated with Source ID 779 shall be equipped with a non-resettable meter to monitor hours of operation.

IV. RECORDKEEPING REQUIREMENTS.**# 007 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The permittee shall record the operating time on a monthly and a 12-consecutive month basis.

008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4245]**Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines****What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?**

[Additional authority for this permit condition is derived from 40 CFR § 60.4243]

(a) The permittee shall keep records of the following information:

- (1) All notifications submitted to comply with 40 CFR Part 60, Subpart JJJJ, and all documentation supporting any notification.
- (2) Maintenance conducted on the engine.
- (3) Documentation that the engine meets the short-term emission limits for NO_x, CO, and VOC.

(b) If the permittee does not operate and maintain Source ID 779 according to the manufacturer's emission-related written instructions, the permittee must keep a maintenance plan and records of conducted maintenance to demonstrate compliance.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

VI. WORK PRACTICE REQUIREMENTS.**# 009 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[Additional authority for this permit condition is derived from 40 CFR § 60.4243]

The permittee shall maintain and operate the engine in a manner consistent with good air pollution control practice and in accordance with Merck's established generator preventive maintenance program.

010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4233]**Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines****What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?**

[Additional authority for this permit condition is derived from 25 Pa. Code § 127.12b]

This engine shall be certified to meet the following emission rates:

- | | |
|---|------------------|
| (a) Nitrogen Oxide (NO _x) - | 1.0 g/hp-hr; |
| (b) Volatile Organic Compounds (VOC) - | 0.7 g/hp-hr; and |
| (c) Carbon Monoxide (CO) - | 2.0 g/hp-hr. |

**SECTION D. Source Level Plan Approval Requirements****VII. ADDITIONAL REQUIREMENTS.****# 011 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

This source consists of a 4-stroke, lean-burn, natural gas fired Caterpillar engine, Model Number G3520, rated 2,952 bhp. This engine will power a 2,000 kW generator that will be used for non-emergency and peak shaving use for Building 78.

012 [25 Pa. Code §129.203]**Stationary internal combustion engines.**

(a) By October 31 of each year, the permittee shall calculate the difference between the actual emissions from the affected internal combustion engine during the period from May 1 through September 30, and the allowable emissions for that same period.

(b) The allowable emissions shall be calculated by multiplying the cumulative hours or operations for this source for the period by the horsepower rating of the unit and by the applicable emission rate of 3.0 g of NO_x per brake hp-hr.

013 [25 Pa. Code §129.204]**Emission accountability.**

(a) If the affected source has NO_x CEMS, the permittee shall determine actual emissions in accordance with the CEMS data reported to the Department shall be used. Any data invalidated under 25 Pa. Code, Chapter 139 (relating to sampling and testing) shall be substituted with data calculated using the potential emission rate for the unit or, if approved by the Department in writing, an alternative amount of emissions that is more representative of actual emissions that occurred during the period of invalid data.

(b) If the permittee is not required to monitor NO_x emissions with a CEMS, one of the following shall be used to determine actual emissions of NO_x:

- (1) The 1-year average emission rate calculated from the most recent permit emission limit compliance demonstration test data for NO_x.
- (2) The maximum hourly allowable NO_x emission rate contained in the permit or the higher of the following:
 - (i) The highest rate determined by use of the emission factor for the unit class contained in the most up-to date version of the EPA publication, "AP-42 Compilation of Air Pollution Emission Factors."
 - (ii) The highest rate determined by use of the emission factor for the unit class contained in the most up-to date version of EPA's "Factor Information Retrieval (FIRE)" data system.
- (3) CEMS data, if the owner or operator elects to monitor NO_x emissions with a CEMS. The owner or operator shall monitor emissions and report the data from the CEMS in accordance with Chapter 139 or Chapter 145 (relating to interstate pollution transport reduction). Any data invalidated under Chapter 139 shall be substituted with data calculated using the potential emission rate for the unit or, if approved by the Department in writing, an alternative amount of emissions that is more representative of actual emissions that occurred during the period of invalid data.
- (4) An alternate calculation and recordkeeping procedure based upon emissions testing and correlations with operating parameters. The operator of the unit shall demonstrate that the alternate procedure does not underestimate actual emissions throughout the allowable range of operating conditions. The alternate calculation and recordkeeping procedures must be approved by the Department, in writing, prior to implementation.

014 [25 Pa. Code §129.204]**Emission accountability.**

(a) The permittee shall surrender to the Department one CAIR NO_x allowance and one CAIR NO_x Ozone Season allowance, as defined in 40 CFR § 96.102 and 96.302 (relating to definitions), for each ton of NO_x by which the combined actual emissions exceed the allowable emissions of the units subject to this section at a facility from May 1 through September 30. The surrendered allowances shall be of current year vintage. For the purpose of determining the amount of allowances to surrender, any remaining fraction of a ton equal to or greater than 0.50 ton is deemed to equal 1 ton and any fraction of a ton less than 0.50 ton is deemed to equal zero tons.

**SECTION D. Source Level Plan Approval Requirements**

- (b) If the combined allowable emissions from units subject to 25 Pa. Code § 129.204 at a facility from May 1 through September 30 exceed the combined actual emissions from same units at the facility during the same period, the permittee may deduct the difference or any portion of the difference from the amount of actual emissions from units subject to this section at the permittee's other facilities.
- (c) By November 1 of each year, the permittee shall surrender the required NOx allowances to the Department's designated NOx allowance tracking system account and provide to the Department, in writing, the following;
- (1) The serial number of each NOx allowance surrendered.
 - (2) The calculations used to determine the quantity of NOx allowances required to be surrendered.
- (d) If the permittee fails to comply with (c), above, the permittee shall by December 31 surrender three (3) NOx allowances of the current or later year vintage for each NOx allowance that was required to be surrendered by November 1 of that year.
- (e) The surrender of NOx allowances under (d), above, does not affect the liability of the permittee of the unit for any fine, penalty or assessment, or an obligation to comply with any other remedy for the same violation, under the CAA or the act.
- (1) For purposes of determining the number of days of violation, if a facility has excess emissions for the period May 1 through September 30, each day in that period (153 days) constitutes a day in violation unless the permittee demonstrates that a lesser number of days should be considered.
 - (2) Each ton of excess emissions is a separate violation.

[Note: On July 6, 2011, EPA promulgated the Cross-State Air Pollution Rule (CSAPR) to replace CAIR. The CSAPR provisions of 40 CFR Part 97, Subpart AAAAA (relating to CSAPR NOx Annual Trading Program), replaced the provisions of 40 CFR Part 96, Subpart AA (relating to CAIR NOx Annual Trading Program General Provisions), and remain in effect. On October 26, 2016, EPA promulgated the CSAPR Update to establish the provisions of 40 CFR Part 97, Subpart EEEEE (relating to CSAPR NOx Ozone Season Group 2 Trading Program), to replace the previously-established CAIR NOx Ozone Season Trading Program and CSAPR NOx Ozone Season Group 1 Trading Program for certain states, including Pennsylvania, beginning with the 2017 ozone season. On April 30, 2021, EPA promulgated the Revised CSAPR Update to establish the provisions of 40 CFR Part 97, Subpart GGGGG (relating to CSAPR NOx Ozone Season Group 3 Trading Program), to replace the provisions of 40 CFR Part 97, Subpart EEEEE, for certain states, including Pennsylvania, beginning with the 2021 ozone season (though DEP will accept CSAPR NOx Ozone Season Group 2 allowances of current year vintage from other states, if available). Accordingly, the permittee shall surrender CSAPR NOx Annual allowances and either CSAPR NOx Ozone Season Group 2 allowances or CSAPR NOx Ozone Season Group 3 allowances, as defined in 40 CFR §§ 97.402, 97.802, and 97.1002, respectively, instead of the CAIR NOx allowances and CAIR NOx Ozone Season allowances indicated in 25 Pa. Code § 129.204(c), as the latter are no longer available.]



SECTION E. Source Group Plan Approval Restrictions.

**SECTION F. Alternative Operation Requirements.**

No Alternative Operations exist for this Plan Approval facility.

**SECTION G. Emission Restriction Summary.**

Source Id	Source Description
046	BOILER 11
Emission Limit	
10.000 PPMV	Ammonia
38.350 Tons/Yr	Determined on a 12-month rolling period CO
0.010 Lbs/MMBTU	Applies when firing natural gas; Determined on a 30-day rolling average NOX
0.032 Lbs/MMBTU	Applies when firing No. 2 fuel oil; Determined on a 30-day rolling average NOX
9.930 Tons/Yr	Determined on a 12-month rolling period NOX
0.980 Tons/Yr	Determined on a 12-month rolling period SOX
1.200 Lbs/MMBTU	SOX
0.190 Lbs/MMBTU	Applies to filterable PM only TSP
8.310 Tons/Yr	Determined on a 12-month rolling period TSP
4.500 Tons/Yr	Determined on a 12-month rolling period VOC
778	175 KW EMERG GEN (B32-2)
Emission Limit	
500.000 PPMV	Determined on a dry basis SOX
0.040 gr/DRY FT3	Applies to filterable PM only TSP
779	2-MW PEAK GEN (B78-2)
Emission Limit	
500.000 PPMV	Determined on a dry basis SOX
0.040 gr/DRY FT3	Applies to filterable PM only TSP

Site Emission Restriction Summary

Emission Limit		Pollutant
10.000 Tons/Yr	Individual HAP	Hazardous Air Pollutants
25.000 Tons/Yr	Total HAP	Hazardous Air Pollutants



SECTION H. Miscellaneous.



***** End of Report *****
