



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY PROGRAM

PLAN APPROVAL

Issue Date:

Effective Date:

Expiration Date:

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. 09-0261A

Federal Tax Id - Plant Code: 91-1986543-1

Owner Information

Name: AMAZON DATA SERVICES INC
Mailing Address: 13200 WOODLAND PARK RD
HERNDON, VA 20171-3025

Plant Information

Plant: AMAZON DATA SVCS INC PNE100
Location: 09 Bucks County 09002 Falls Township
SIC Code: 7374 Services - Data Processing Services

Responsible Official

Name: ROBB TRUEDINGER
Title: AUTHORIZED REPRESENTATIVE
Phone: (724) 674 - 4033 Email: cangeyac@amazon.com

Plan Approval Contact Person

Name: ANDREW CANGEY
Title: SR AIR PERMITTING ENGR
Phone: (724) 674 - 4033 Email: cangeyac@amazon.com

[Signature] _____
JILLIAN A. GALLAGHER, SOUTHEAST REGION AIR PROGRAM MANAGER



Plan Approval Description

- (a) The provisions in Plan Approval No. 09-0261A [Phase 2] shall be construed to supersede any contrary provisions in the previously issued Plan Approval No. 09-0261 [Phase 1].
- (b) This plan approval is for the installation of two-hundred and eighty (280) 4,287 hp natural gas-fired critical back-up power generator engines, one (1) 2,360 hp diesel-fired ancillary emergency generator engine (Tier 2), one (1) 609 hp diesel-fired ancillary emergency generator engine (Tier 3), and one (1) 398 hp diesel-fired ancillary emergency generator engine (Tier 3) at an existing data center facility. The 280 natural gas engines will be equipped with the following add-on control devices: selective catalytic reduction (SCR) to control nitrogen oxide (NOx) emissions, oxidation catalyst (OC) to control carbon monoxide (CO) and volatile organic compound (VOC) emissions, including formaldehyde (CH₂O), and an ammonia slip catalyst (ASC) to reduce ammonia slip.
- (c) The purpose of the generators is to provide backup power in the event of a main utility power supply interruption.



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

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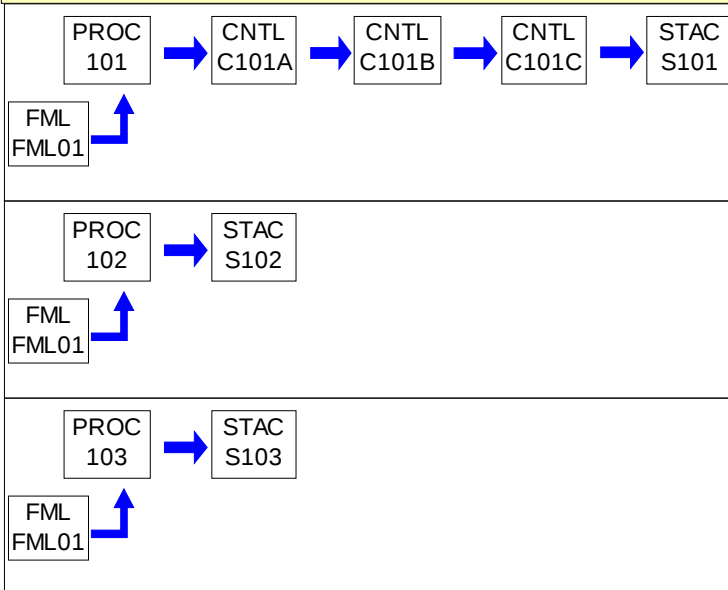
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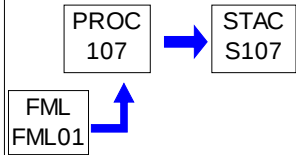
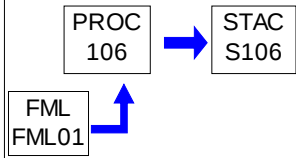
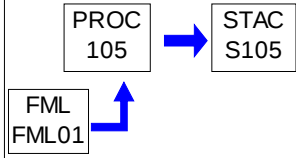
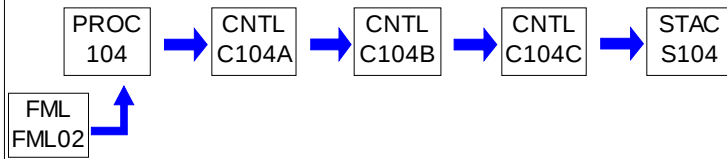
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**SECTION A. Plan Approval Inventory List**

Source ID	Source Name	Capacity/Throughput	Fuel/Material
101	72-4043 HP CAT 3516E CRITICAL EMERGENCY ENGINES (CEG1-CEG72)	192.900 Gal/HR	Diesel Fuel
102	2-1474 HP CAT C32 HOUSE EMERGENCY ENGINES (HG1 - HG2)	71.500 Gal/HR	Diesel Fuel
103	2-1112 HP CAT C18 HOUSE EMERGENCY ENGINES (HG3 - HG4)	53.600 Gal/HR	Diesel Fuel
104	280-4287 HP INNIO CRITICAL BACK-UP ENGINES (NGG1-NGG280)	27,331.000 CF/HR	Natural Gas
105	1-2360 HP CAT 3512C ANCILLARY EMERGENCY ENGINE (AG1)	109.400 Gal/HR	Diesel Fuel
106	1-609 HP CAT C13 ANCILLARY EMERGENCY ENGINE (AG2)	27.900 Gal/HR	Diesel Fuel
107	1-398 HP CAT C9 ANCILLARY EMERGENCY ENGINE (AG3)	19.400 Gal/HR	Diesel Fuel
C101A	SELECTIVE CATALYTIC REDUCTION		
C101B	DIESEL PARTICULATE FILTER		
C101C	DIESEL OXIDATION CATALYST		
C104A	SELECTIVE CATALYTIC REDUCTION		
C104B	OXIDATION CATALYST		
C104C	AMMONIA SLIP CATALYST		
FML01	DIESEL FUEL OIL		
FML02	NATURAL GAS		
S101	CEG1 THROUGH CEG72 STACKS		
S102	HG1 THROUGH HG2 STACKS		
S103	HG3 THROUGH HG4 STACKS		
S104	NGG1 THROUGH NGG280 STACKS		
S105	AG1 STACK		
S106	AG2 STACK		
S107	AG3 STACK		

PERMIT MAPS

**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 §123.1]****Prohibition of certain fugitive emissions**

No person may permit the emission into the outdoor atmosphere of a fugitive air contaminant from a source other than the following:

- (1) Construction or demolition of buildings or structures.
- (2) Grading, paving and maintenance of roads and streets.
- (3) Use of roads and streets. Emissions from material in or on trucks, railroad cars and other vehicular equipment are not considered as emissions from use of roads and streets.
- (4) Clearing of land.
- (5) Stockpiling of materials.
- (6) Open burning operations, as specified in 25 Pa. Code § 129.14.
- (7) N/A
- (8) N/A
- (9) Sources and classes of sources other than those identified in (1)-(8) above, for which the permittee has obtained a determination from the Department that fugitive emissions from the source, after appropriate control, meet the following requirements:

- (i) The emissions are of minor significance with respect to causing air pollution; and
- (ii) The emissions are not preventing or interfering with the attainment or maintenance of any ambient air quality standard.

002 [25 Pa. Code §123.2]**Fugitive particulate matter**

A person may not permit fugitive particulate matter to be emitted into the outdoor atmosphere from a source specified in 25 Pa. Code § 123.1, if such emissions are visible at the point the emissions pass outside the person's property.

003 [25 Pa. Code §123.31]**Limitations**

A person may not permit the emission into the outdoor atmosphere of any malodorous air contaminants from any source in such a manner that the malodors are detectable outside the property of the person on whose land the source is being operated.

004 [25 Pa. Code §123.41]**Limitations**

The following opacity limitations apply to all air contaminant sources at the facility, except where more stringent limitations are imposed on specific sources. 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 three (3) minutes in any one (1) hour.
- (b) Equal to or greater than 60% at any time.

005 [25 Pa. Code §123.42]**Exceptions**

The opacity limitations of 25 Pa. Code § 123.41 shall not apply to a visible emission in any of the following instances:

- (a) When the presence of uncombined water is the only reason for failure of the emission to meet the limitations.
- (b) When the emission results from the operation of equipment used solely to train and test persons in observing the opacity of visible emissions.
- (c) When the emission results from sources specified in 25 Pa. Code § 123.1 (relating to prohibition of certain fugitive emissions).

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

- (a) The permittee shall limit facility-wide NO_x emissions to less than 25 tons per year, based on a 365-day rolling sum.
- (b) The permittee shall limit facility-wide VOC emissions to less than 25 tons per year, based on a 365-day rolling sum.

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

(c) The permittee shall limit facility-wide CO emissions to less than 100 tons per year, based on a 12-month rolling sum.

(d) The permittee shall limit facility-wide formaldehyde emissions to less than 10 tons per year, based on a 12-month rolling sum.

[The facility-wide emission limits include emissions from the source(s) listed in this plan approval as well as miscellaneous sources exempt from plan approval requirements which are listed in the Miscellaneous Section H of this plan approval.]

007 [25 Pa. Code §129.14]**Open burning operations**

No person may permit the open burning of material in the Southeast Air Basin except when the open burning operations result from:

(a) A fire set to prevent or abate a fire hazard, when approved by the Department and set by or under the supervision of a public officer.

(b) Any fire set for the purpose of instructing personnel in fire fighting, when approved by the Department.

(c) A fire set for the prevention and control of disease or pests, when approved by the Department.

(d) A fire set in conjunction with the production of agricultural commodities in their unmanufactured state on the premises of the farm operation.

(e) A fire set for the purpose of burning domestic refuse, when the fire is on the premises of a structure occupied solely as a dwelling by two families or less and when the refuse results from the normal occupancy of the structure.

(f) A fire set solely for recreational or ceremonial purposes.

(g) A fire set solely for cooking food.

Operation Hours Restriction(s).**# 008 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The permittee shall not use any backup power generator or emergency generator for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity

II. TESTING REQUIREMENTS.**# 009 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

(a) If at any time the Department has cause to believe that air contaminant emissions from any source may be in excess of the limitations specified in this permit, or established pursuant to, any applicable rule or regulation contained in 25 Pa. Code Article III, the permittee shall be required to conduct whatever tests are deemed necessary by the Department to determine the actual emission rate(s).

(b) Such testing shall be conducted in accordance with the provisions of 25 Pa. Code Chapter 139, the most current version of the DEP Source Testing Manual, and the EPA Clean Air Act National Stack Testing Guidance, when applicable, and in accordance with any restrictions or limitations established by the Department at such time as it notifies the permittee that testing is required.

010 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

(a) The permittee shall email all source test submissions (protocols, reports, supplemental information, etc.) to both the AQ Program Manager for the Southeast Regional Office and the PSIMS Administrator in Central Office (email addresses are provided below). Any questions or concerns about source testing submissions can be sent to RAEPstacktesting@pa.gov and the PSIMS Administrator will address them.

Southeast Region
RA-EPSEstacktesting@pa.gov

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

Central Office
RA-EPstacktesting@pa.gov

(b) The following pertinent information shall be listed on the title page.

(1) Test Date(s)

- (i) For protocols, provide the proposed date on which testing will commence or "TBD"
- (ii) For reports, provide the first and last day of testing

(2) Primary Facility Identification Number (PF ID 883491): For test programs that were conducted under a multi-site protocol, also include the PF ID under which the protocol was stored in PSIMS, as indicated in the protocol response letter.

(3) Source ID(s) for the applicable source(s) and air pollution control device(s): The term Source ID is used in the permit but "Other Id" is used in DEP electronic systems. They are the same number and must also be listed for control equipment.

(4) Testing Requirements (all that apply):

- (i) Plan approval number(s)
- (ii) Applicable federal subpart(s) (i.e. 40 C.F.R. 60, Subpart IIII)

(c) If confidential information must be submitted, submit both a public copy, which has been redacted, and a confidential copy. The cover page of each submittal should state whether it is a "Public Copy" or "Confidential Copy" and each page of the latter must be marked "CONFIDENTIAL".

III. MONITORING REQUIREMENTS.**# 011 [25 Pa. Code §123.43]****Measuring techniques**

Visible emissions may be measured using either of the following:

- (a) A device approved by DEP and maintained to provide accurate opacity measurements.
- (b) Observers trained and qualified to measure plume opacity with the naked eye or with the aid of any devices approved by DEP.

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

(a) The permittee shall monitor the facility, once per operating day, for the following:

- (1) Odors which may be objectionable (as per 25 Pa. Code § 123.31).
- (2) Visible Emissions (as per 25 Pa. Code §§ 123.41 and 123.42).
- (3) Fugitive Particulate Matter (as per 25 Pa. Code §§ 123.1 and 123.2).

(b) Objectionable odors, fugitive particulate emissions, and visible emissions that are caused or may be caused by operations at the site shall:

- (1) Be investigated;
- (2) Be reported to the facility management, or individual(s) designated by the permittee;
- (3) Have appropriate corrective action taken (for emissions that originate on-site); and
- (4) Be recorded in a permanent written log.

(c) After six (6) months of daily monitoring, and upon the permittee's request, the Department will determine the feasibility of decreasing the monitoring frequency to weekly.

(d) After six (6) months of weekly monitoring, and upon the permittee's request, the Department will determine the feasibility of decreasing the monitoring frequency to monthly.

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

(e) DEP reserves the right to change the above monitoring requirements at any time, based on but not limited to: the review of the compliance certification, complaints, monitoring results, and/or Department findings.

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

The permittee shall maintain a record of all monitoring of fugitive emissions, visible emissions and odors, including those that deviate from the conditions found in this permit. The record of deviations shall contain, at a minimum, the following items:

- (a) The name and title of the company representative monitoring these instances.
- (b) The date and time of the observation.
- (c) A description of any emissions or malodors observed. If none are observed, record "NONE."
- (d) The possible cause(s) of the emissions or malodors.
- (e) Corrective action(s) taken to abate or mitigate each recorded deviation and to prevent future occurrences.

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

The permittee shall maintain records of all the facility's increases of emissions from the following categories:

- (a) De minimis increases without notification to the Department.
- (b) De minimis increases with notification to the Department, via letter.
- (c) Increases resulting from a Request for Determination (RFD) to the Department.
- (d) Increases resulting from the issuance of a plan approval and subsequent operating permit.

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

- (a) The permittee shall maintain records of facility-wide formaldehyde, CO, SO_x, and PM (total, PM₁₀, and PM_{2.5}) emissions on a monthly and 12-month rolling sum.
- (b) The permittee shall maintain records of facility-wide NO_x emissions on a daily, monthly, and 365-day rolling sum.
- (c) The permittee shall maintain records of facility-wide VOC emissions on a daily, monthly, and 365-day rolling sum.
- (d) Facility-wide emissions include emissions from the sources listed in this plan approval as well as insignificant or miscellaneous sources exempt from plan approval requirements.
- (e) Emissions generated during the commissioning period shall be included in the permittee's demonstration of compliance with permitted emission limits.

016 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The permittee shall record greenhouse gas emissions (CO₂, CH₄, N₂O), including any relevant emissions data, from all stationary fuel combustion sources at the facility as part of compliance with the GHG Mandatory Reporting Rule.

017 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

- (a) The permittee shall keep records of the operation of all emergency engines, non-emergency engines, and/or fire pumps on site for all maintenance checks, readiness testing, source testing or operational training (that involves fuel combustion) that includes the date, time and duration of the equipment operation.
- (b) All records generated pursuant to this permit condition shall be retained for a minimum of five (5) years and shall be made available to the Department upon request.

018 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

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

To correlate compliance with the operation restrictions of each engine during ozone season with Air Quality Index (AQI) information, the permittee shall maintain records of the following information:

- (a) The forecasted AQI, as determined by the AirNow website for the area in which the source is located no earlier than 5pm two (2) days prior to planned operation, for ozone for the day(s) that an engine generator set operated during scheduled maintenance checks and readiness testing, source testing, or operational training.
- (b) The measured AQI, as determined by the AirNow website for the area in which the source is located for ozone for the day(s) that the engine generator set operated during scheduled maintenance checks and readiness testing, source testing, or operational training.
- (c) Documentation recording any Air Alerts issued for the operating day, as determined by AirNow-EnviroFlash.
- (d) Details of scheduled maintenance checks and readiness testing, source testing, or operational training activities, to include, but not limited to, clock hours and duration.

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

- (a) The permittee shall report malfunctions, emergencies or incidents of excess emissions to DEP's 24-hour Emergency Hotline at 800.541.2050. 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 electronically submit any 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 electronically 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.

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

(g) Any emissions resulting 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.

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

(a) Prior to increasing the quantity or changing the type of materials specified in the application or limited by this permit, the permittee shall submit a request to DEP for review and approval.

(b) Total replacement of an existing engine type and/or generator set is allowable, provided the following conditions are met:

(1) The permittee shall provide thirty (30) days written notification to DEP of a planned replacement, or within seven (7) days after an unplanned replacement is commenced.

(2) The equipment being installed shall meet the current applicable BAT Compliance Requirements.

(3) The engine and/or generator set to be installed, or which has been installed, shall be an identical unit or lower emitting unit.

(4) The written notice shall identify the location, the manufacturer, model, serial number, and rated capacity of the engine and generator set, and the manufacturer, model, serial number, and rated capacity of the engine and generator set to be installed, or which has been installed, and the air contaminant emission rates which will exist following engine and/or generator replacement, including NO_x and CO.

(5) The written notice shall include a certification from the permittee, signed by a responsible official, that the equipment will meet all applicable terms and conditions of this plan approval.

(6) The notice shall be accompanied by a vendor-provided guarantee of the achievable air contaminant emission rates of the new unit. If such a guarantee is not available, the notice shall include certification that the permittee attempted to obtain such guarantee and an explanation as to why the vendor will not provide such a guarantee

(7) All certifications shall be signed by a responsible official as the term is defined in 25 Pa. Code § 121.1 and shall acknowledge that the certifying party is aware of the penalties for unsworn falsification to governmental authorities as established under 18 Pa.C.S. § 4904. The certification shall also state that based on information and belief formed after reasonable inquiry, that the information in the notice is true, accurate and complete.

(8) After an engine or generator set has been replaced, the permittee shall perform NO_x and CO emissions testing for the respective unit(s) within one-hundred twenty (120) days of completing the replacement. Source testing shall be performed in accordance 25 Pa. Code Title 25, Chapter 139.

(9) The fixed capital cost of engine replacement shall not exceed 50% of the fixed capital cost that would be required to construct a comparable entirely new generator set; fixed capital cost means the capital needed to provide the depreciable components.

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

The permittee shall report to DEP within 15 days following the month of any occurrence meeting or exceeding 25 tons of facility-wide NO_x or VOC emissions per 12-month rolling period.

022 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

(a) The permittee shall submit to DEP an annual certification of compliance with the terms and conditions of this plan approval for the previous year, including the emission limitations, standards, or work practices.

(b) The reporting period specified by the permittee shall be no later than one year from the start of operations of the facility, unless otherwise approved by DEP. The initial and subsequent annual reports shall be submitted within 60 days of the end

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

of the reporting periods.

(c) During the commissioning period for each engine and prior to the engine(s) commencing operation after commissioning, any operating parameter terms and conditions shall be considered Best Management Practices (BMPs) and not subject to the certification of compliance. However, emissions generated during the commissioning period shall be reported in accordance with applicable regulatory requirements. Once the engine(s) become operational, the engine(s) shall be included in the annual compliance certification in accordance with the terms and conditions herein.

(d) General information required on each annual certification of compliance reports includes:

- (1) PF ID Name (Amazon Data Services, Inc.)
- (2) Plan Approval No. 09-0261A,
- (3) Address of the site,
- (4) The beginning and ending dates of the reporting period,
- (5) The statement: "Based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete."
- (6) The signature of the certifying Responsible Official,
- (7) Identification of each source included in the report (i.e. CEG1, HG1, etc.), and serial number,
- (8) The identification of each term or condition of the plan approval that is the basis of the certification, the compliance status, and the methods used for determining the compliance status of the source over the reporting period,
- (9) The records of the facility's emissions, including emissions occurring during the commissioning period, to demonstrate compliance with facility-wide emission limits in Section C of this plan approval.

023 [25 Pa. Code §135.3]**Reporting**

The permittee shall submit by March 1, of each year, a source report for the preceding calendar year. The report shall include information from all previously reported sources, new sources which were first operated during the preceding calendar year, and sources modified during the same period which were not previously reported, including those sources listed in the Miscellaneous Section of this permit.

The permittee may request an extension of time from the Department for the filing of a source report, and the Department may grant the extension for reasonable cause.

VI. WORK PRACTICE REQUIREMENTS.**# 024 [25 Pa. Code §123.1]****Prohibition of certain fugitive emissions**

A person responsible for any source specified in 25 Pa. Code § 123.1 shall take all reasonable actions to prevent particulate matter from becoming airborne. These actions shall include, but not be limited to, the following:

- (a) Use, where possible, of water or suitable chemicals, for control of dust in the demolition of buildings or structures, construction operations, the grading of roads, or the clearing of land;
- (b) Application of asphalt, water, or other suitable chemicals, on dirt roads, material stockpiles and other surfaces which may give rise to airborne dusts;
- (c) Paving and maintenance of roadways; and
- (d) Prompt removal of earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water, or by other means.

025 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The permittee shall immediately, upon discovery, implement measures which may include the application for the installation of air cleaning device(s), if necessary, to reduce the air contaminant emissions to within applicable limitations, if at any time the operation of the source(s) identified in this permit is causing the emission of air contaminants in excess of the limitations specified in, or established pursuant to 25 Pa. Code Article III or any other applicable rule promulgated

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

under the Clean Air Act.

026 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

(a) The permittee shall ensure that all sources and control devices are installed, operated, and maintained in accordance with manufacturer's specifications and good engineering and air pollution control practices.

(b) The sources listed in this plan approval shall be installed and operated in accordance with the plans submitted with the plan approval application (as approved herein).

(c) The provisions in this plan approval shall be construed to supersede any contrary provisions in previously issued Plan Approval No. 09-0261.

027 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

All future expansion projects under common control by the permittee, with the same SIC Code, constructed on contiguous or adjacent properties to the project listed in this plan approval (Phase 1 + Phase 2) shall be aggregated with the Phase 1 and Phase 2 as one source for major source permitting purposes and with respect to the Title V and NSR permitting process.

028 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

(a) When the daily Air Quality Index (AQI) for Ozone for the area in which the source is located is forecasted to be 80 or greater from May 1 through September 30, the permittee shall not start or operate a stationary emergency engine, non-emergency engine, and/or fire pump for maintenance checks, readiness testing, source testing or operational training (that involves fuel combustion) between the hours of 7 a.m. and 7 p.m.

The forecast for Ozone shall be obtained on the AirNow website at <https://www.airnow.gov/>, or its EPA-approved successor website. The forecast is updated by 5 pm each day for the next day's values. If there is not a forecast for the area in which the source is located, the nearest forecasted area should be used.

(b) Upon the designation of severe or higher Ozone Classification for an area in Pennsylvania, the following Ozone Season work practice limitation will be enforced for emergency engines, non-emergency engine, and/or fire pump sources within that designated area:

From May 1 through September 30 the permittee shall not start or operate a stationary emergency engine, non-emergency engine, and/or fire pump for scheduled maintenance checks, readiness testing, source testing or operational training (that involves fuel combustion) between the hours of 7 a.m. to 7 p.m.

VII. ADDITIONAL REQUIREMENTS.

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

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.

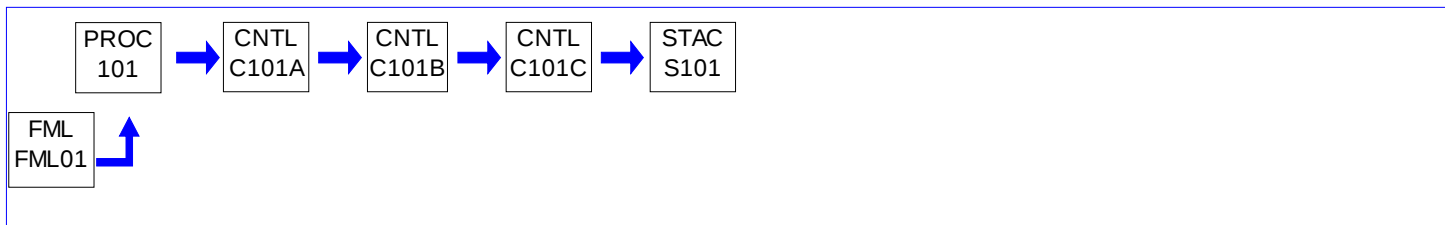
**SECTION D. Source Level Plan Approval Requirements**

Source ID: 101

Source Name: 72-4043 HP CAT 3516E CRITICAL EMERGENCY ENGINES (CEG1-CEG72)

Source Capacity/Throughput: 192.900 Gal/HR Diesel Fuel

Conditions for this source occur in the following groups: GROUP 1

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Source ID 101 consists of seventy-two (72) Caterpillar 3516E diesel-fired emergency generator engines, each rated at 4,043 horsepower. The 72 critical emergency engines are Tier 4-equivalent engines, i.e. Tier 2 certified engines with add-on selective catalyst reduction (SCR) to control nitrogen oxide (NOx) emissions, diesel particulate filter (DPF) to control particulate matter (PM) emissions, and diesel oxidation catalyst (DOC) to control carbon monoxide (CO) and volatile organic compound (VOC) emissions. Each generator set has an electrical output power capacity of 2,750 ekW.

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

Source ID: 102

Source Name: 2-1474 HP CAT C32 HOUSE EMERGENCY ENGINES (HG1 - HG2)

Source Capacity/Throughput:

71.500 Gal/HR

Diesel Fuel

Conditions for this source occur in the following groups: GROUP 1

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Source ID 102 consists of two (2) Tier 2 certified, Caterpillar C32 diesel-fired house emergency generator engines, each rated at 1,474 horsepower. Each generator set has an electrical output power capacity of 1,000 ekW.

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

Source ID: 103

Source Name: 2-1112 HP CAT C18 HOUSE EMERGENCY ENGINES (HG3 - HG4)

Source Capacity/Throughput:

53.600 Gal/HR

Diesel Fuel

Conditions for this source occur in the following groups: GROUP 1

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Source ID 103 consists of two (2) Tier 2 certified, Caterpillar C18 diesel-fired house emergency generator engines, each rated at 1,112 horsepower. Each generator set has an electrical output power capacity of 750 ekW.

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

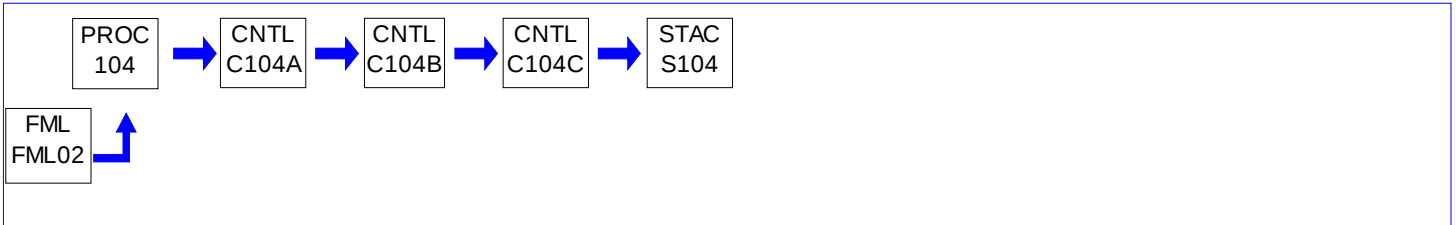
Source ID: 104

Source Name: 280-4287 HP INNIO CRITICAL BACK-UP ENGINES (NGG1-NGG280)

Source Capacity/Throughput: 27,331.000 CF/HR

Natural Gas

Conditions for this source occur in the following groups: GROUP 1
GROUP 2
GROUP 6
GROUP 8

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[Additional authority for this permit condition is derived from 25 Pa. Code § 127.1.]

The permittee shall comply with the following post-control emission standards, which serve as Best Available Technology (BAT) for each stationary spark ignition internal combustion engine listed in Source ID 104:

- (a) NO_x - less than 0.05 gram/hp-hr,
- (b) VOC - less than 0.25 gram/hp-hr,
- (c) CO - less than 0.25 gram/hp-hr,
- (d) CH₂O - less than 0.05 gram/hp-hr,
- (e) Ammonia slip - less than 10 ppmvd at 15% oxygen.

[Initial compliance with the limits of this condition will be verified through initial source testing.]

[The BAT emission standards of this condition are more stringent and streamline compliance with the NO_x, CO, and VOC emission standards listed in Table 1 of 40 C.F.R. Part 60 Subpart JJJJ for Non-Emergency Spark Ignition Natural Gas Stationary Engines greater than 500 HP manufactured after July 1, 2010.]

002 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

- (a) The permittee shall limit post-control NO_x emissions from each natural gas-fired engine listed in Source ID 104 to 0.18 lb/hr.
- (b) The permittee shall limit post-control VOC emissions from each natural gas-fired engine listed in Source ID 104 to 0.18 lb/hr.
- (c) The permittee shall limit post-control CO emissions from each natural-gas-fired engine listed in Source ID 104 to 0.71 lb/hr.

[Initial compliance with the pound per hour limits will be determined through initial source testing; ongoing compliance will be verified through proper operation and maintenance of each engine and control systems according to manufacturer specifications, and periodic monitoring and testing, as approved herein.]

**SECTION D. Source Level Plan Approval Requirements****Fuel Restriction(s).**

003 [25 Pa. Code §127.12b]
Plan approval terms and conditions.

The permittee shall fire the engine with natural gas only, as the term natural gas is defined in 40 C.F.R. § 60.4248.

II. TESTING REQUIREMENTS.

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

(a) Initial compliance with the NO_x, VOC, CO, formaldehyde, ammonia slip, and opacity emission limits shall be demonstrated through simultaneous source testing using methods approved by the DEP's Division of Source Testing and Monitoring. Within 180 calendar days of initial operation, fifty-six (56) of the natural gas engine generator sets installed under Source ID 104 will require a source test to demonstrate initial compliance. Unless and otherwise approved by DEP, starting the second calendar year after any engine begins operating, initial source testing shall continue annually for the remainder of the engine generator sets installed under Source ID 104 such that 20% of the total quantity of engine generator sets that have been installed at the end of each preceding calendar year will be tested. The initial source test obligations will be considered complete once each generator engine has been tested one time.

(b) Compliance testing shall only occur if the forecast Air Quality Index (AQI) for ozone as published on the AirNow website for the area in which the source is located for that day is less than or equal to 80 unless prior approval has been given by DEP.

(c) The source test shall be conducted with the natural gas engine generator set operating at a minimum of 90% rated capacity.

(d) During each source test, the permittee shall monitor and record the following information, at a minimum:

- (1) Generator load or kilowatt output,
- (2) Fuel consumption,
- (3) Post-control NO_x concentration,
- (4) Exhaust temperature at the outlet of the SCR control system,
- (5) Differential pressure drop across the SCR control system,
- (6) Urea solution injection rate.

(e) In addition to the specific performance testing requirements included in this permit, DEP may require the permittee to conduct a source test if it is determined that the air contaminant emissions from a source operating under this permit are, or may be, in excess of an applicable air contaminant emission limitation.

(f) In accordance with 25 Pa. Code § 139.1, the permittee shall provide adequate sampling ports, safe sampling platforms, and adequate utilities for the performance by DEP of tests on the source.

(g) All testing shall be performed in accordance with any applicable federal regulations, 25 Pa. Code, Chapter 139, the most current version of DEP's Source Testing Manual, or an alternative test method as approved by DEP, and DEP's Source Testing FAQs available at:
<https://www.pa.gov/services/dep/request-independent-audit-of-source-testing-and-emissioncompliance1.html>.

(h) All submittals shall meet the applicable requirements specified in 25 Pa. Code, Chapter 139, the most current version of DEP's Source Testing Manual, and DEP's Source Testing FAQs available at:
<https://www.pa.gov/services/dep/requestindependent-audit-of-source-testing-and-emission-compliance1.html>.

(i) An electronic copy of all reports and protocols shall be submitted to the Air Program Manager of the appropriate DEP Regional Office and to the Pennsylvania Source Test Information Management System (PSIMS) Administrator in DEP's Central Office. Electronic copies should be sent to the appropriate email addresses which can be found at the DEP website.

(j) At least 90 calendar days prior to commencing a required performance test, a test protocol shall be submitted in accordance with (g), (h) and (i) above for review and approval. The protocol shall clearly state the engine identification and

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

serial number for each engine generator set to be included in the source test.

(k) At least 30 calendar days prior to commencing a required performance test, notification of the date and time of testing shall be provided to the appropriate DEP Regional Office and the appropriate test protocol reviewer who approved the test plan so that an observer may be present. DEP is under no obligation to accept the results of any testing performed without adequate advance notice to DEP of such testing.

(l) A complete test report shall be received in accordance with (i) above no later than 60 calendar days after completion of the on site testing portion of a required performance test. The complete test report shall clearly state the engine identification and serial number for each engine generator set included in the source test. The complete test report shall include a summary at the beginning of the report which includes:

- (1) A statement conforming to the requirements of Section 2.1.2.6 of DEP's Source Testing Manual that the owner or operator has reviewed the report from the emissions testing company and agrees with the findings;
- (2) The conditions that are the basis for the evaluation;
- (3) A summary of results with respect to each applicable permit condition; and
- (4) A statement of compliance or non compliance with each applicable permit condition.

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

The permittee shall continuously monitor the following information, while each engine listed in Source ID 104 is in operation:

- (a) SCR catalyst bed temperature,
- (b) Total system differential pressure across the after-treatment system, inclusive of the OC and SCR,
- (c) NO_x concentration measured after the SCR catalyst, expressed in ppm,
- (d) SCR urea dosing rate.

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

The permittee shall monitor the hours of operation of each engine through the use of a non-resettable hour meter.

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

- (a) The permittee shall conduct periodic monitoring once every 2,500 hours of operation unless complying with (b) of this condition.
- (b) The permittee may reduce the frequency of periodic monitoring to every 4,400 hours of operation provided the results of all testing and monitoring over the previous 12 consecutive month period demonstrated exhaust emissions of NO_x and CO were below 50% of applicable emission standards listed in Condition #001 for this source.
- (c) When conducting periodic monitoring on an engine, the permittee shall determine the NO_x and CO emissions and O₂ concentrations in the exhaust following the procedures specified in the current version of ASTM D6522 or by following the same procedures used for performance testing that were previously approved by DEP through a current performance test protocol.
- (d) Periodic monitoring will consist of three test runs of at least 20 minutes duration within 10% of 100% peak (or the highest achievable) load.
- (e) The hours of operation count resets after any performance test or periodic monitoring is performed.

**SECTION D. Source Level Plan Approval Requirements****IV. RECORDKEEPING REQUIREMENTS.****# 008 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

(a) The permittee shall record the following information, on a continuous basis, while each engine listed in Source ID 104 is in operation:

- (1) SCR catalyst bed temperature,
- (2) Total system differential pressure across the aftertreatment system, inclusive of the OC and SCR,
- (3) NO_x concentration measured after the SCR catalyst, expressed in ppm,
- (4) SCR urea dosing rate.

[For continuous recordkeeping, the information shall be recorded at a minimum frequency of once every fifteen minutes and shall be correlated to run date, engine operating hours, and fuel consumption.]

(b) The permittee shall maintain records of any urea level alarms triggered, including the unit identification, date and time, and the corrective action taken.

V. REPORTING REQUIREMENTS.**# 009 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

Within 30 days of submitting source test results showing that post-control NO_x emissions exceeded 0.05 g/bhp-hr and/or post-control VOC emissions exceed 0.25 g/hp-hr, as determined during any source test, the permittee shall submit to DEP for approval the proposed corrective measures.

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

(a) The permittee shall operate and maintain the associated control system according to the manufacturer's specifications and good air pollution control practices.

(b) The permittee shall operate this source only when the associated control device is operating properly.

011 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The permittee shall operate the following control devices in accordance with written manufacturer specifications when an engine listed in Source ID 104 is in operation for any reason:

- (a) Selective Catalytic Reduction (SCR) control device,
- (b) Oxidation Catalyst (OC) control device,
- (c) Ammonia Slip Catalyst control device.

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

Source ID 104 consists of two-hundred-eighty (280) INNIO Jenbacher J620 natural gas-fired critical back-up power generator engines, each rated at 4,287 horsepower. Each generator set has an electrical output power capacity of 3,000 kW.

The 280 critical back-up engines (NGG1 through NGG280) are equipped with add-on selective catalyst reduction (SCR) to control nitrogen oxide (NO_x) emissions, oxidation catalyst (OC) to control carbon monoxide (CO), volatile organic compound (VOC), and formaldehyde (CH₂O) emissions, and ammonia slip catalyst to reduce ammonia slip from the SCR reagent (urea).

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

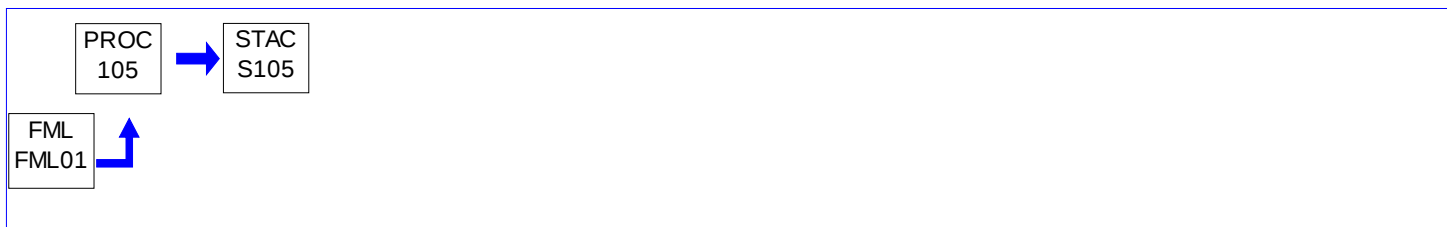
Source ID: 105

Source Name: 1-2360 HP CAT 3512C ANCILLARY EMERGENCY ENGINE (AG1)

Source Capacity/Throughput: 109.400 Gal/HR Diesel Fuel

Conditions for this source occur in the following groups:

- GROUP 1
- GROUP 2
- GROUP 3
- GROUP 4
- GROUP 6
- GROUP 7

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

001 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4205]

Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

[Additional authority for this permit condition is also derived from 25 Pa. Code Chapter 122, 25 Pa. Code § 127.12(a)(5), 40 C.F.R. § 60.4202(a)(2), 40 C.F.R. § 60.4205(b), and 40 C.F.R. Part 1039 Appendix I, Table 2.]

The emergency stationary CI internal combustion engine listed in Source ID 105 shall be certified to meet the Tier 2 emission standards specified in Table 2 of Appendix 1 of 40 C.F.R. Part 1039:

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

- (a) NO_x + NMHC: 6.4 g/kW-hr (4.8 g/hp-hr)
(b) PM: 0.20 g/kW-hr (0.15 g/hp-hr)

[Compliance with the emission standards of 40 C.F.R. Part 60 Subpart IIII and 40 C.F.R. Part 1039 is demonstrated through the Tier 2 engine certification for NO_x + NMHC and PM emissions.]

[The PM emission standard of 40 C.F.R. Part 60 Subpart IIII and 40 C.F.R. Part 1039 is more stringent and streamlines compliance with the PM emission standard of 25 Pa. Code § 123.13(c)(1)(i).]

[This condition serves as Best Available Technology (BAT), in accordance with 25 Pa. Code § 127.1.]

VII. ADDITIONAL REQUIREMENTS.

002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Source ID 105 consists of one (1) Tier 2 certified, Caterpillar 3512C diesel-fired ancillary emergency generator engine, rated at 2,360 horsepower. The generator set has an electrical output power capacity of 1,600 kW.

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

Source ID: 106

Source Name: 1-609 HP CAT C13 ANCILLARY EMERGENCY ENGINE (AG2)

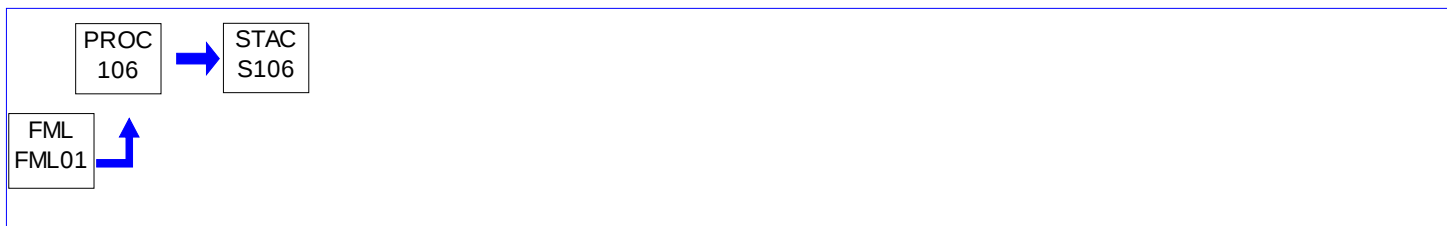
Source Capacity/Throughput:

27.900 Gal/HR

Diesel Fuel

Conditions for this source occur in the following groups:

- GROUP 1
- GROUP 2
- GROUP 3
- GROUP 5
- GROUP 7

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

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 § 127.12(a)(5).]

The permittee shall comply with the CO emission limit of 2.6 grams/bhp-hr (3.5 grams/kW-hr).

[Compliance with the CO emission limit of this condition shall be demonstrated through information provided by the manufacturer of the diesel engine emergency generator set.]

[The CO emission limit of this condition is more stringent and streamlines compliance with the CO emission standard of 40 C.F.R. Part 60 Subpart IIII and 40 C.F.R. Part 1039 applicable to this engine.]

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

Source ID 106 consists of one (1) Tier 3 certified, Caterpillar C13 diesel-fired ancillary emergency generator engine, rated at 609 horsepower. The generator set has an electrical output power capacity of 400 ekW.

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

Source ID: 107

Source Name: 1-398 HP CAT C9 ANCILLARY EMERGENCY ENGINE (AG3)

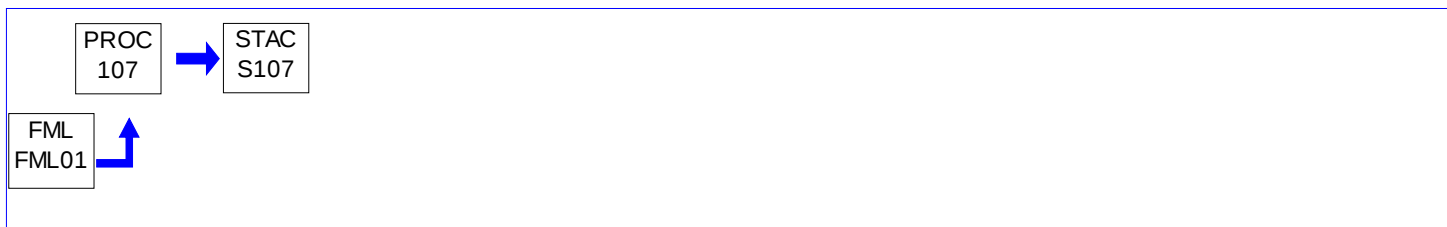
Source Capacity/Throughput:

19.400 Gal/HR

Diesel Fuel

Conditions for this source occur in the following groups:

- GROUP 1
- GROUP 2
- GROUP 3
- GROUP 4
- GROUP 5
- GROUP 7

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Source ID 107 consists of one (1) Tier 3 certified, Caterpillar C9 diesel-fired ancillary emergency generator engine, rated at 398 horsepower. The generator set has an electrical output power capacity of 250 ekW.

**SECTION E. Source Group Plan Approval Restrictions.**

Group Name: GROUP 1

Group Description: Aggregate Fuel Usage Limit - ALL ENGINES

Sources included in this group

ID	Name
101	72-4043 HP CAT 3516E CRITICAL EMERGENCY ENGINES (CEG1-CEG72)
102	2-1474 HP CAT C32 HOUSE EMERGENCY ENGINES (HG1 - HG2)
103	2-1112 HP CAT C18 HOUSE EMERGENCY ENGINES (HG3 - HG4)
104	280-4287 HP INNIO CRITICAL BACK-UP ENGINES (NGG1-NGG280)
105	1-2360 HP CAT 3512C ANCILLARY EMERGENCY ENGINE (AG1)
106	1-609 HP CAT C13 ANCILLARY EMERGENCY ENGINE (AG2)
107	1-398 HP CAT C9 ANCILLARY EMERGENCY ENGINE (AG3)

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

001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall limit the annual amount of fuel usage as follows:

$$\left(\frac{\text{Group 1 Fuel Usage}}{174,238 \text{ gallons}} \right) + \left(\frac{\text{Group 2 Fuel Usage}}{2,099,259 \text{ gallons}} \right) + \left(\frac{\text{Group 3 Fuel Usage}}{176,953 \text{ gallons}} \right) + \left(\frac{\text{Group 4 Fuel Usage}}{180,539 \text{ gallons}} \right) + \left(\frac{\text{Group 5 Fuel Usage}}{204 \text{ MMscf}} \right) + \left(\frac{\text{Group 6 Fuel Usage}}{7,453 \text{ MMscf}} \right) + \left(\frac{\text{Group 7 Fuel Usage}}{171,864 \text{ gallons}} \right) + \left(\frac{\text{Group 8 Fuel Usage}}{202,292 \text{ gallons}} \right) + \left(\frac{\text{Group 9 Fuel Usage}}{334,879 \text{ gallons}} \right)$$
is less than or equal to 1.0

Where:

- Group 1 = Source ID 101 engines while the SCR is not operating
- Group 2 = Source ID 101 engines while the SCR is operating
- Group 3 = Source ID 102 engines operating at any time
- Group 4 = Source ID 103 engines operating at any time
- Group 5 = Source ID 104 engines while SCR is not operating
- Group 6 = Source ID 104 engines while SCR is operating
- Group 7 = Source ID 105 engine operating at any time
- Group 8 = Source ID 106 engine operating at any time
- Group 9 = Source ID 107 engine operating at any time

[Aggregate fuel used by all engines per group, based on a rolling 365-day period. Compliance with the consecutive 365-day period shall be demonstrated daily by adding the total for the most recently completed calendar day to the individual daily total for the preceding 364 days.]

[DEP reserves the right to revise the denominator values in the above equation, based on the manufacturer's emission data per final engine models selected and installed.]

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).

**SECTION E. Source Group Plan Approval Restrictions.****IV. RECORDKEEPING REQUIREMENTS.****# 002 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

(a) The permittee shall record the individual fuel consumption (in gallons or cubic feet) for each engine generator set on a daily and annual basis, including the rolling 365-day period.

(b) The permittee shall record the aggregate fuel usage (in gallons or cubic feet) for each engine group, calculated daily as the sum of each consecutive 365-day period for the purposes of the compliance demonstration with the fuel throughput limit equation, where:

Group 1 = Source ID 101 engines while the SCR is not operating

Group 2 = Source ID 101 engines while the SCR is operating

Group 3 = Source ID 102 engines operating at any time

Group 4 = Source ID 103 engines operating at any time

Group 5 = Source ID 104 engines while SCR is not operating

Group 6 = Source ID 104 engines while SCR is operating

Group 7 = Source ID 105 engine operating at any time

Group 8 = Source ID 106 engine operating at any time

Group 9 = Source ID 107 engine operating at any time

(c) The permittee shall record the hours of operation of each engine on a monthly and 12-month rolling sum, including the purpose of operation.

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.

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

VII. ADDITIONAL REQUIREMENTS.

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

**SECTION E. Source Group Plan Approval Restrictions.**

Group Name: GROUP 2

Group Description: General Requirements - ALL ENGINES

Sources included in this group

ID	Name
104	280-4287 HP INNIO CRITICAL BACK-UP ENGINES (NGG1-NGG280)
105	1-2360 HP CAT 3512C ANCILLARY EMERGENCY ENGINE (AG1)
106	1-609 HP CAT C13 ANCILLARY EMERGENCY ENGINE (AG2)
107	1-398 HP CAT C9 ANCILLARY EMERGENCY ENGINE (AG3)

I. RESTRICTIONS.**Emission Restriction(s).****# 001 [25 Pa. Code §123.21]****General**

No person may permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of the sulfur oxides, expressed as SO₂, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

[For all diesel engines: Compliance with this condition is streamlined in 40 C.F.R. § 60.4207(b) and § 1090.305, and is met by using diesel fuel oil with a sulfur content of 15 ppm maximum.]

[For the natural gas engines listed in Source ID 104: This condition serves as BAT for SO_x emissions with additional authority derived from 25 Pa. Code § 127.1. Compliance with this condition is met by using pipeline-quality natural gas fuel.]

002 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

[This condition serves as Best Available Technology (BAT), in accordance with 25 Pa. Code § 127.1.]

Visible emissions from any engine stack shall not exceed the following limitations:

- (a) Equal to or greater than 10% for a period or periods aggregating more than three (3) minutes in any one (1) hour; and
- (b) Equal to or greater than 30% at any time.

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

[This condition serves as Best Available Technology (BAT) for PM emissions, in accordance with 25 Pa. Code § 127.1]

The permittee shall ensure that emission into the outdoor atmosphere of particulate matter from each emergency generator engine occurs in such a manner that the concentration of particulate matter in the effluent gas does not exceed 0.02 gr/dscf.

[The BAT standard for PM emissions is more stringent than 0.04 gr/dscf and therefore streamlines compliance with the PM standard of 25 Pa. Code § 123.13(c)(1)(i).]

[The method of compliance for this permit condition is using proper fuels as approved herein.]

[For all diesel engines: Compliance with the PM standard of 40 C.F.R. Part 60 Subpart IIII (40 C.F.R. § 60.4202(a)(2) and (b)(2)) and the Tier 2 and Tier 3 emission standards listed in Table 2 and Table 3 to Appendix I to Part 1039 is more stringent and streamlines compliance with the PM standard of 25 Pa. Code § 123.13(c)(1)(i) and the BAT standard for PM emissions.]

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).

**SECTION E. Source Group Plan Approval Restrictions.****III. MONITORING REQUIREMENTS.****# 004 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

- (a) The permittee shall equip each unit with a device to continuously measure and record individual fuel consumption for each engine generator set.
- (b) For the engines listed in Source ID 104, the permittee shall monitor the fuel usage such that the volume of natural gas (cubic foot per hour) can be correlated to dosing of the SCR reactant.

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

The permittee shall calculate monthly NO_x, CO, SO_x, VOC, particulate matter (total, PM₁₀, and PM_{2.5}), and HAP (formaldehyde and total HAP) emissions in tons per year from each engine using the following method:

- (a) The total monthly fuel usage rate measured by the fuel flow meter in volume per month multiplied by each pollutant's installed model's worst-case emissions factor (in pounds of pollutant per volume of fuel consumed) provided in the manufacturer specification sheet for that particular engine-generator set.
- (b) For the engines listed in Source ID 104, all post-control emissions factors shall be adjusted based on control efficiencies guaranteed by the control system manufacturer.
- (c) For the engines listed in Source ID 104, post-control NO_x emission calculations shall be based on the amount of fuel consumed correlating to the SCR effectively reducing NO_x emissions.

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

The permittee shall maintain records of all maintenance (i.e., routine/preventative maintenance, repairs, parts replacement, tune-ups, monitoring device calibration checks, etc.) performed on this engine and/or generator and/or associated control device. These records shall contain, at a minimum, the following:

- (a) The date of the maintenance.
- (b) Any routine/preventative maintenance performed.
- (c) Any problems or defects.
- (d) Any corrective action(s) taken.

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

- (a) The permittee shall maintain on site copies of all vendor literature and manufacturer-recommended operating and maintenance procedures for each engine and/or each control system associated with each engine (as applicable).
- (b) The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

008 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The permittee shall maintain records of monthly NO_x, CO, SO_x, VOC, particulate matter (total, PM₁₀, and PM_{2.5}), and HAP (formaldehyde and total HAP) emissions in tons per year from each engine, including 12-month rolling sums.

009 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The permittee shall maintain records of all planned non-emergency operation per generator to include:

- (a) Purpose of operation,
- (b) Duration of operation,
- (c) Date of operation,
- (d) Frequency of each type of operation per calendar quarter and per calendar year,
- (e) Total number of hours of each type of operation per calendar year.

**SECTION E. Source Group Plan Approval Restrictions.****# 010 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The permittee shall maintain the following records for a minimum of five (5) years:

- (a) Summary for each complete source test report,
- (b) Results of each periodic monitoring.

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.**# 011 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The permittee shall take measures in order to minimize the duration and frequency of excess emissions, including the following:

- (a) Develop a maintenance schedule and maintain records of all scheduled and nonscheduled maintenance.
- (b) Maintain an inventory of spare parts.
- (c) Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
- (d) Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment.

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

(a) The permittee shall clearly label and identify each generator set in accordance with the source identification and nomenclature specified in this permit. Labels must be durable, legible, and permanently affixed to the generator visible from the outside. Identification shall also include the designated Source ID as provided in Section A of this permit to ensure proper compliance tracking and regulatory oversight.

(b) The permittee shall maintain all manufacturer-applied labels in a legible and permanent condition to ensure accurate identification of each engine.

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

(a) The permittee shall install, maintain, calibrate, and operate the fuel flow and hour meter monitoring devices in accordance with approved procedures which shall include, at a minimum, the manufacturer's written requirements or recommendations.

(b) The permittee shall provide adequate access to each monitoring device for inspection, and shall operate each monitoring device when the source is in operation.

VII. ADDITIONAL REQUIREMENTS.

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

**SECTION E. Source Group Plan Approval Restrictions.**

Group Name: GROUP 3

Group Description: General Requirements - All Diesel EGENs

Sources included in this group

ID	Name
105	1-2360 HP CAT 3512C ANCILLARY EMERGENCY ENGINE (AG1)
106	1-609 HP CAT C13 ANCILLARY EMERGENCY ENGINE (AG2)
107	1-398 HP CAT C9 ANCILLARY EMERGENCY ENGINE (AG3)

I. RESTRICTIONS.**Fuel Restriction(s).****# 001 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

(a) The permittee shall use only diesel fuel oil in each diesel engine generator set.

(b) Diesel fuel oil is defined as ultra-low sulfur diesel fuel oil (ULSD), renewable diesel, or a blend of these fuels, and shall meet the specifications below:

(1) Does not exceed the American Society for Testing and Materials (ASTM) specification, D975, for grade ultra-low sulfur 1-D S15 or grade 2-D S15, or

(2) Has a maximum sulfur content not to exceed 0.0015% by weight (15 ppm), and either a minimum cetane number of forty or maximum aromatic content of thirty-five volume percent.

Operation Hours Restriction(s).**# 002 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The permittee shall limit total run time of each engine individually to 500 hours per year, based on a 12-month rolling sum.

II. TESTING REQUIREMENTS.**# 003 [25 Pa. Code §139.16]****Sulfur in fuel oil.**

(a) The following are applicable to tests for the analysis of commercial fuel oil:

(1) The fuel oil sample for chemical analysis shall be collected in a manner that provides a representative sample. Upon the request of a Department official, the person responsible for the operation of the source shall collect the sample employing the procedures and equipment specified in 25 Pa. Code § 139.4(10) (relating to references).

(2) Test methods and procedures for the determination of viscosity shall be that specified in 25 Pa. Code § 139.4(11) (relating to references). The viscosity shall be determined at 100°F.

(3) Tests methods and procedures for the determination of sulfur shall be those specified in 25 Pa. Code § 139.4(12)-(15) and (20).

(4) Results shall be reported in accordance with the units specified in 25 Pa. Code § 123.22 (relating to combustion units).

(b) The testing requirements in subpart (a) shall be waived in the event that each time a fuel oil delivery is made, a fuel supplier certification is obtained, and includes the name of the fuel oil supplier and the sulfur content or maximum sulfur content of the fuel oil.

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).

**SECTION E. Source Group Plan Approval Restrictions.****IV. RECORDKEEPING REQUIREMENTS.****# 004 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The permittee shall maintain records of the following information, for each shipment of diesel fuel received, obtained either by laboratory analysis or from the fuel supplier's certification:

- (a) Sulfur content,
- (b) Cetane index or aromatic content.

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

Upon receipt of the first shipment of renewable diesel or a blend of renewable diesel and ULSD, the permittee shall furnish written notification the following information to DEP:

- (a) The actual date on which the shipment was received within thirty (30) days after such date,
- (b) Name and address of the permittee,
- (c) Engine generator sets (with Source ID and unit reference numbers) utilizing the fuel in the shipment, and
- (d) Fuel certification.

VI. WORK PRACTICE REQUIREMENTS.**# 006 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The permittee shall obtain a certification from the fuel supplier with each shipment of diesel fuel oil. Each fuel supplier certification shall include the following:

- (a) The name of the fuel supplier,
- (b) The date on which the diesel fuel oil was received,
- (c) The quantity of diesel fuel oil delivered in the shipment, and
- (d) A statement that the diesel fuel oil complies with the requirements specified in the Fuel Restriction Condition listed in this permit.

VII. ADDITIONAL REQUIREMENTS.

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

**SECTION E. Source Group Plan Approval Restrictions.**

Group Name: GROUP 4

Group Description: Tier 2 and Tier 3 Engines CO Limits

Sources included in this group

ID	Name
105	1-2360 HP CAT 3512C ANCILLARY EMERGENCY ENGINE (AG1)
107	1-398 HP CAT C9 ANCILLARY EMERGENCY ENGINE (AG3)

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.**

[This condition serves as Best Available Technology (BAT), in accordance with 25 Pa. Code § 127.1. The CO emission standard is derived from BAQ-GPA/GP-9, Condition No. 7(b)(iii).]

The permittee shall comply with the CO emission standard of 2.0 grams/bhp-hr (2.7 grams/kW-hr).

[Compliance with the BAT emission standard of this condition for CO emissions shall be demonstrated through information provided by the manufacturer of the diesel engine emergency generator set.]

[The CO emission standard of this condition is more stringent and streamlines compliance with the CO emission standard of 40 C.F.R. Part 60 Subpart IIII and 40 C.F.R. Part 1039 applicable to this engine.]

VII. ADDITIONAL REQUIREMENTS.

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

**SECTION E. Source Group Plan Approval Restrictions.**

Group Name: GROUP 5

Group Description: Tier 3 Engines NOx + NMHC and PM Limits

Sources included in this group

ID	Name
106	1-609 HP CAT C13 ANCILLARY EMERGENCY ENGINE (AG2)
107	1-398 HP CAT C9 ANCILLARY EMERGENCY ENGINE (AG3)

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 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4205]

Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

[Additional authority for this permit condition is also derived from 25 Pa. Code Chapter 122, 25 Pa. Code § 127.12(a)(5), 40 C.F.R. § 60.4202(a)(2), 40 C.F.R. § 60.4205(b), and 40 C.F.R. Part 1039 Appendix I, Table 3.]

The emergency stationary CI internal combustion engines listed in Source ID 106 and Source ID 107 shall be certified to meet the Tier 3 emission standards specified in Table 3 of Appendix 1 of 40 C.F.R. Part 1039:

- (a) NOx + NMHC: 4.0 g/kW-hr (3.0 g/hp-hr)
- (b) PM: 0.20 g/kW-hr (0.15 g/hp-hr)

[Compliance with the emission standards of 40 C.F.R. Part 60 Subpart IIII and 40 C.F.R. Part 1039 is demonstrated through the Tier 3 engine certification for NOx + NMHC and PM emissions.]

[The PM emission standard of 40 C.F.R. Part 60 Subpart IIII and 40 C.F.R. Part 1039 is more stringent and streamlines compliance with the PM emission standard of 25 Pa. Code § 123.13(c)(1)(i).]

[This condition serves as Best Available Technology (BAT), in accordance with 25 Pa. Code § 127.1.]

VII. ADDITIONAL REQUIREMENTS.

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

**SECTION E. Source Group Plan Approval Restrictions.**

Group Name: GROUP 6

Group Description: 25 Pa. Code Sections 129.203-129.204

Sources included in this group

ID	Name
104	280-4287 HP INNIO CRITICAL BACK-UP ENGINES (NGG1-NGG280)
105	1-2360 HP CAT 3512C ANCILLARY EMERGENCY ENGINE (AG1)

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 §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 unit during the period from May 1 through September 30, and the allowable emissions for the same period.

(b) For each spark-ignited engine, the permittee shall calculate allowable emissions by multiplying the cumulative hours of operations for the unit for the period by the horsepower rating of the unit and by 3.0 grams of NO_x per brake horsepower-hour.

(c) For each compression ignition stationary internal combustion engine firing diesel fuel, the permittee shall calculate allowable emissions by multiplying the cumulative hours of operations for the unit for the period by the horsepower rating of the unit and 2.3 grams of NO_x per brake horsepower-hour.

002 [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 C.F.R. 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.

(b) If the combined allowable emissions from units subject to this section at a facility from May 1 through September 30 exceed the combined actual emissions from units subject to this section 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.

**SECTION E. Source Group Plan Approval Restrictions.**

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

(d) If the permittee fails to comply with subsection (c), the permittee shall by December 31 surrender three 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 subsection (d) 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 C.F.R. Part 97, Subpart AAAAA (relating to CSAPR NO_x Annual Trading Program), replaced the provisions of 40 C.F.R. 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 C.F.R. 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 C.F.R. Part 97, Subpart GGGGG (relating to CSAPR NO_x Ozone Season Group 3 Trading Program), to replace the provisions of 40 C.F.R. 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). On November 6, 2024, EPA revised 40 C.F.R. Part 97 Subpart GGGGG to include the new CSAPR NO_x Ozone Season Expanded Group 2 Allowances. 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 C.F.R. §§ 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.]

003 [25 Pa. Code §129.204]**Emission accountability.**

(a) If the affected source(s) has NO_x CEMS, the permittee shall determine actual emissions in accordance with the CEMS data reported to the Department. Any data invalidated under 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 permittee elects to monitor NO_x emissions with a CEMS. The permittee shall monitor emissions and report the data from the CEMS in accordance with 25 Pa. Code Chapter 139 or Chapter 145 (relating to interstate pollution

**SECTION E. Source Group Plan Approval Restrictions.**

transport reduction). Any data invalidated under 25 Pa. Code 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 permittee shall demonstrate that the alternate procedure does not underestimate actual emissions throughout the allowable range of operating conditions. In regard to obtaining the Department's approval for an alternate calculation method and recordkeeping procedure for actual emissions, the permittee may request an adjustment to the allowable emissions calculations set forth in 25 Pa. Code § § 129.201-129.203. An allowable emission adjustment may not overestimate a unit's allowable emissions and must be based upon the parameters and procedures proposed in the alternate calculation method for actual emissions. The alternate calculation and recordkeeping procedures must be approved by the Department, in writing, prior to implementation.

VII. ADDITIONAL REQUIREMENTS.

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

**SECTION E. Source Group Plan Approval Restrictions.**

Group Name: GROUP 7

Group Description: 40 C.F.R. Part 60 Subpart IIII

Sources included in this group

ID	Name
105	1-2360 HP CAT 3512C ANCILLARY EMERGENCY ENGINE (AG1)
106	1-609 HP CAT C13 ANCILLARY EMERGENCY ENGINE (AG2)
107	1-398 HP CAT C9 ANCILLARY EMERGENCY ENGINE (AG3)

I. RESTRICTIONS.**Fuel Restriction(s).****# 001 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4207]****Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines****What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to**

[Additional authority for this permit condition is also derived from 25 Pa. Code Chapter 122, 40 C.F.R. §§ 60.4207(b), and 40 C.F.R. § 1090.305.]

The permittee shall use diesel fuel that meets ULSD per-gallon standards as follows:

(a) Sulfur standard: Maximum sulfur content of 15 ppm.

(b) Cetane index or aromatic content as follows:

(1) Minimum cetane index of 40, or

(2) Maximum aromatic content of 35 volume percent.

[Compliance with this streamlined condition assures compliance with 25 Pa. Code § 123.21(b).]

Operation Hours Restriction(s).**# 002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211]****Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines****What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?**

[Additional authority for this permit condition is also derived from 25 Pa. Code Chapter 122 and 40 C.F.R. § 60.4211(f).]

The permittee shall operate each emergency stationary ICE according to the requirements in paragraphs (a) and (b) of this condition. In order for an engine to be considered an emergency stationary ICE under 40 C.F.R. Part 60 Subpart IIII, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in nonemergency situations for 50 hours per year, as described in paragraphs (a) and (b) of this condition, is prohibited. If the permittee does not operate the engine according to the requirements in paragraphs (a) and (b) of this condition, the engine will not be considered an emergency engine under Subpart IIII and must meet all requirements for non-emergency engines.

(a) The permittee may operate the emergency stationary ICE for any combination of the purposes of maintenance checks and readiness testing for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (b) of this condition counts as part of the 100 hours per calendar year allowed by this paragraph (a). Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(b) An emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (a) of this condition. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

**SECTION E. Source Group Plan Approval Restrictions.****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.

**# 003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4209]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?**
[Additional authority for this permit condition is also derived from 40 C.F.R. § 60.4209(a) and 25 Pa. Code Chapter 122.]
The permittee shall monitor the hours of operation of each engine through the use of a non-resettable hour meter.

IV. RECORDKEEPING REQUIREMENTS.

**# 004 [25 Pa. Code §127.12b]
Plan approval terms and conditions.**
The permittee shall keep records on site to demonstrate compliance that each engine is EPA certified (i.e. certificate of conformity or Tier certification, etc.) and in compliance with the applicable emission standards as required by 40 C.F.R. § Part 60 Subpart IIII and 40 C.F.R. Part 1039 for the model year and size.

**# 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4214]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?**
[Additional authority for this permit condition is also derived from 25 Pa. Code Chapter 122 and 40 C.F.R. § 60.4214(b).]

(a) The permittee shall maintain monthly and annual records of the operation time of each engine in emergency and non-emergency service that are recorded through the non-resettable hour meter.

(b) The permittee shall record the time of operation of each engine and the reason the engine was in operation during that time.

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.

**# 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4206]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?**
[Additional authority for this permit condition is also derived from 25 Pa. Code Chapter 122.]
The permittee shall operate and maintain each engine that achieves the emission standards as required in 40 C.F.R. § 60.4205 over the entire life of the engine.

**# 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?**
[Additional authority for this permit condition is also derived from 25 Pa. Code Chapter 122 and 40 C.F.R. § 60.4211(a) and (c).]

(a) The permittee shall install and configure each engine in accordance with the manufacturer specifications.

(b) The permittee shall operate and maintain each engine in accordance with one of the following:

(1) The manufacturers' written instructions and/or specifications, or

**SECTION E. Source Group Plan Approval Restrictions.**

(2) Permittee-developed procedures that are approved by the manufacturer. Only those settings that are permitted to be changed by the manufacturer may be changed.

008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211]**Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines****What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?**

[Additional authority for this permit condition is also derived from 25 Pa. Code Chapter 122 and 40 C.F.R. § 60.4211(g)(3).]

If the permittee does not install, configure, operate, and maintain any engine according to the manufacturer's emission related written instructions, or the permittee changes emission-related settings in a way that is not permitted by the manufacturer, the permittee shall demonstrate compliance as follows:

For the engine which is greater than 500 HP, the permittee shall keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the emission-related settings are changed in a way that is not permitted by the manufacturer. The permittee shall conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

VII. ADDITIONAL REQUIREMENTS.**# 009 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The engines contained in this Group are subject to the Standards of Performance for New Stationary Sources Subpart IIII and shall comply with all applicable requirements of this Subpart. In accordance with 40 C.F.R. § 60.4, copies of all requests, reports, applications, submittals, and other communications are required to be submitted to both the EPA (NSPS reports may be submitted electronically to EPA's Central Data Exchange: <https://cdx.epa.gov/>) and to DEP via Greenport (<https://greenport.pa.gov/ePermitPublicAccess/PublicSubmission/ValidatePublicSubmission>).

**SECTION E. Source Group Plan Approval Restrictions.**

Group Name: GROUP 8

Group Description: 40 C.F.R. Part 60 Subpart JJJJ

Sources included in this group

ID	Name
104	280-4287 HP INNIO CRITICAL BACK-UP ENGINES (NGG1-NGG280)

I. RESTRICTIONS.**Fuel Restriction(s).****# 001 [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 also derived from 25 Pa. Code Chapter 122.]

The permittee may operate the engine using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the permittee shall conduct a performance test to demonstrate compliance with the emission standards of 40 C.F.R. § 60.4233, according to 40 C.F.R. § 60.4243(e).

II. TESTING REQUIREMENTS.**# 002 [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 also derived from 25 Pa. Code Chapter 122 and Chapter 139.]

The permittee shall conduct an initial performance test and shall conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance, according to 40 C.F.R. § 60.4243(b)(2)(ii).

003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4244]**Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines****What test methods and other procedures must I use if I am an owner or operator of a stationary SI internal combustion engine?**

[Additional authority for this permit condition is also derived from 25 Pa. Code Chapter 122 and Chapter 139.]

The permittee shall follow the procedures in paragraphs (a) through (c) of this condition, according to 40 C.F.R. § 60.4244:

(a) Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in 40 C.F.R. § 60.8.

(b) The permittee shall not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in 40 C.F.R. § 60.8(c). If the stationary SI internal combustion engine is non-operational, the permittee does not need to startup the engine solely to conduct a performance test; however, the permittee must conduct the performance test immediately upon startup of the engine.

(c) The permittee shall conduct three separate test runs for each performance test required in this section, as specified in 40 C.F.R. § 60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.

004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4244]**Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines****What test methods and other procedures must I use if I am an owner or operator of a stationary SI internal combustion engine?**

[Additional authority for this permit condition is also derived from 25 Pa. Code Chapter 122 and Chapter 139.]

For each performance test conducted to show compliance with the concentration of NO_x in the exhaust, the permittee shall follow the procedures in paragraphs (a) through (f) of this condition, according to 40 C.F.R. § 60.4244 and as specified in

**SECTION E. Source Group Plan Approval Restrictions.**

Table 2 to 40 C.F.R. Part 60 Subpart JJJJ as follows:

(a) Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine using Test Method 1 or 1A of 40 C.F.R. Part 60, Appendix A-1, if measuring flow rate.

(1) Alternatively, for NO_x, O₂, and moisture measurement, ducts less than or equal to 6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and less than or equal to 12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line (3-point long line). If the duct is >12 inches in diameter and the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Test Method 1 of 40 C.F.R. Part 60, Appendix A, the duct may be sampled at 3-point long line; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Test Method 7E of 40 C.F.R. Part 60, Appendix A.

(b) Determine the O₂ concentration of the stationary internal combustion engine exhaust at the sampling port location using Test Method 3, 3A, or 3B of 40 C.F.R. Part 60, Appendix A-2 or ASTM Method D6522-00.

(1) Measurements to determine O₂ concentration must be made at the same time as the measurements for NO_x concentration.

(c) If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust using Test Method 2 or 2C of 40 C.F.R. Part 60, Appendix A-1 or Test Method 19 of 40 C.F.R. Part 60, Appendix A-7.

(d) If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location using Test Method 4 of 40 C.F.R. Part 60, Appendix A-3, Test Method 320 of 40 C.F.R. Part 63, Appendix A, or ASTM Method D 6348-03.

(1) Measurements to determine moisture must be made at the same time as the measurement for NO_x concentration.

(e) Measure NO_x at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device using Test Method 7E of 40 C.F.R. Part 60, Appendix A-4, ASTM Method D6522-00 (Reapproved 2005), Test Method 320 of 40 C.F.R. Part 63, Appendix A, or ASTM Method D 6348-03.

(1) Results of this test consist of the average of the three 1-hour or longer runs.

(f) To determine compliance with the NO_x mass per unit output emission limitation, convert the concentration of NO_x in the engine exhaust using Equation 1 of 40 C.F.R. § 60.4244(d).

005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4244]

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

What test methods and other procedures must I use if I am an owner or operator of a stationary SI internal combustion engine?

[Additional authority for this permit condition is also derived from 25 Pa. Code Chapter 122 and Chapter 139.]

For each performance test conducted to show compliance with the concentration of CO in the exhaust, the permittee shall follow the procedures in paragraphs (a) through (f) of this condition, according to 40 C.F.R. § 60.4244 and as specified in Table 2 to 40 C.F.R. Part 60 Subpart JJJJ as follows:

(a) Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine using Test Method 1 or 1A of 40 C.F.R. Part 60, Appendix A-1, if measuring flow rate.

(1) Alternatively, for CO, O₂, and moisture measurement, ducts less than or equal to 6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and less than or equal to 12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line (3-point long line). If the duct is >12 inches in diameter and the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Test Method 1 of 40 C.F.R. Part 60, Appendix A, the duct may be sampled at 3-point long line; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Test Method 7E of 40 C.F.R. Part 60, Appendix A.

(b) Determine the O₂ concentration of the stationary internal combustion engine exhaust at the sampling port location using

**SECTION E. Source Group Plan Approval Restrictions.**

Test Method 3, 3A, or 3B of 40 CFR Part 60, Appendix A-2 or ASTM Method D6522-00 (Reapproved 2005).

(1) Measurements to determine O₂ concentration must be made at the same time as the measurements for CO concentration.

(c) If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust using Test Method 2 or 2C of 40 CFR Part 60, Appendix A-1 or Test Method 19 of 40 C.F.R. Part 60, Appendix A-7.

(d) If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location using Test Method 4 of 40 C.F.R. Part 60, Appendix A-3, Method 320 of 40 C.F.R. Part 63, Appendix A, or ASTM Method D 6348-03.

(1) Measurements to determine moisture must be made at the same time as the measurement for CO concentration.

(e) Measure CO at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device using Test Method 10 of 40 C.F.R. Part 60, Appendix A4, ASTM Method D6522-00 (Reapproved 2005), Test Method 320 of 40 C.F.R. Part 63, Appendix A, or ASTM Method D 6348-03.

(1) Results of this test consist of the average of the three 1-hour or longer runs.

(f) To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of 40 C.F.R. § 60.4244(e).

006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4244]

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

What test methods and other procedures must I use if I am an owner or operator of a stationary SI internal combustion engine?

[Additional authority for this permit condition is also derived from 25 Pa. Code Chapter 122 and Chapter 139.]

For each performance test conducted to show compliance with the concentration of VOC in the exhaust, the permittee shall follow the procedures in paragraphs (a) through (g) of this condition, according to 40 C.F.R. § 60.4244 and as specified in Table 2 to 40 C.F.R. Part 60 Subpart JJJJ as follows:

(a) Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine using Test Method 1 or 1A of 40 C.F.R. Part 60, Appendix A-1, if measuring flow rate.

(1) Alternatively, for VOC, O₂, and moisture measurement, ducts less than or equal to 6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and less than or equal to 12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line (3-point long line). If the duct is >12 inches in diameter and the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Test Method 1 of 40 C.F.R. Part 60, Appendix A, the duct may be sampled at 3-point long line; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Test Method 7E of 40 C.F.R. Part 60, Appendix A.

(b) Determine the O₂ concentration of the stationary internal combustion engine exhaust at the sampling port location using Test Method 3, 3A, or 3B of 40 C.F.R. Part 60, Appendix A-2 or ASTM Method D6522-00 (Reapproved 2005).

(1) Measurements to determine O₂ concentration must be made at the same time as the measurements for VOC concentration.

(c) If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust; using Test Method 2 or 2C of 40 C.F.R. Part 60, Appendix A-1 or Test Method 19 of 40 C.F.R. Part 60, Appendix A-7.

(d) If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location using Test Method 4 of 40 C.F.R. Part 60, Appendix A-3, Test Method 320 of 40 C.F.R. Part 63, Appendix A, or ASTM Method D 6348-03.

**SECTION E. Source Group Plan Approval Restrictions.**

(1) Measurements to determine moisture must be made at the same time as the measurement for VOC concentration.

(e) Measure VOC at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device using Test Methods 25A and 18 of 40 C.F.R. Part 60, Appendices A-6 and A-7, Method 25A with the use of a methane cutter as described in 40 C.F.R. § 1065.265, Test Method 18 of 40 C.F.R. Part 60, Appendix A-6, Test Method 320 of 40 C.F.R. Part 63, Appendix A, or ASTM Method D 6348-03.

(1) Results of this test consist of the average of the three 1-hour or longer runs.

(f) When calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of 40 C.F.R. § 60.4244(f).

(g) If the permittee chooses to measure VOC emissions using either Test Method 18 of 40 C.F.R. Part 60, Appendix A, or Test Method 320 of 40 C.F.R. Part 63, Appendix A, then the permittee has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Test Method 25A. The results from Test Method 18 and Test Method 320 can be corrected for response factor differences using Equations 4 and 5 of 40 C.F.R. § 60.4244(g). The corrected VOC concentration can then be placed on a propane basis using Equation 6 of 40 C.F.R. § 60.4244(g).

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.

**# 007 [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 also derived from 25 Pa. Code Chapter 122.]

The permittee shall keep a maintenance plan and records of maintenance conducted on the stationary SI internal combustion engine, according to 40 C.F.R. § 60.4243(b)(2)(ii) and 40 C.F.R. § 60.4245(a)(2).

**# 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 also derived from 25 Pa. Code Chapter 122.]

The permittee shall maintain records documenting that the engine meets the emission standards of 40 C.F.R. Part 60 Subpart JJJJ, according to 40 C.F.R. § 60.4245(a)(4) because the engine is not a certified engine.

**# 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?**

[Additional authority for this permit condition is also derived from 25 Pa. Code Chapter 122.]

(a) The permittee shall keep records of all notifications submitted to DEP and/or EPA to comply with the requirements of 40 C.F.R. Part 60 Subpart JJJJ and all documentation supporting any notification.

V. REPORTING REQUIREMENTS.

**# 010 [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 also derived from 25 Pa. Code Chapter 122.]

**SECTION E. Source Group Plan Approval Restrictions.**

(a) The permittee shall submit an initial notification as required in 40 CFR § 60.7(a)(1) to DEP and EPA. The notification must include the information in paragraphs (a)(1) through (5) of this condition:

- (1) Name and address of the owner or operator;
- (2) The address of the affected source;
- (3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
- (4) Emission control equipment; and
- (5) Fuel used.

(b) The permittee shall submit a copy of each performance test as conducted in 40 CFR § 60.4244 within 60 days after the test has been completed.

VI. WORK PRACTICE REQUIREMENTS.

011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4234]

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

How long must I meet the emission standards if I am an owner or operator of a stationary SI internal combustion engine?

[Additional authority for this permit condition is also derived from 25 Pa. Code Chapter 122.]

The permittee shall operate and maintain the stationary SI ICE that achieves the emission standards as required in 40 C.F.R. § 60.4233 over the entire life of the engine.

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?

[Additional authority for this permit condition is also derived from 25 Pa. Code Chapter 122.]

The permittee shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions, according to 40 C.F.R. § 60.4243(b)(2)(ii).

VII. ADDITIONAL REQUIREMENTS.

013 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The engines contained in this Group are subject to the Standards of Performance for New Stationary Sources Subpart JJJJ and shall comply with all applicable requirements of this Subpart. In accordance with 40 C.F.R. § 60.4, copies of all requests, reports, applications, submittals, and other communications are required to be submitted to both the EPA (NSPS reports may be submitted electronically to EPA's Central Data Exchange: <https://cdx.epa.gov/>) and to DEP via Greenport (<https://greenport.pa.gov/ePermitPublicAccess/PublicSubmission/ValidatePublicSubmission>).

**SECTION F. Alternative Operation Requirements.**

No Alternative Operations exist for this Plan Approval facility.

**SECTION G. Emission Restriction Summary.**

Source Id Source Description

Site Emission Restriction Summary

Emission Limit		Pollutant
24.900 Tons/Yr	Based on a 12-month rolling sum	NOX
99.900 Tons/Yr	Based on a 12-month rolling sum	CO
24.900 Tons/Yr	Based on a 12-month rolling sum	VOC
9.900 Tons/Yr	Based on a 12-month rolling sum	Formaldehyde

**SECTION H. Miscellaneous.**

The facility is located at 600 Ben Fairless Drive, Morrisville, PA.

(a) Each diesel generator set has a diesel belly storage tank. The maximum true vapor pressure of diesel is less than 3.5 kPa (0.5 psia).

Potential VOC emissions are less than 2.7 tpy, using the equations from AP-42, Section 7.1, Organic Liquid Storage Tanks. The diesel fuel tanks are exempt from plan approval requirements in accordance with 25 Pa. Code § 127.14(a)(8), Item No. 15 of Document No. 275-2101-003 dated July 1, 2021.

(1) Source ID 101 and Source ID 102 includes 74 diesel fuel tanks with a maximum capacity of 6,300 gallons per tank (associated with CEG1 through CEG72 engines and HG1 and HG2 engines)

(2) Source ID 103 includes two (2) diesel fuel oil tanks with a maximum capacity of 1,367 gallons per tank (associated with HG3 and HG4 engines)

(3) Source ID 105 includes one (1) diesel fuel oil tank with a maximum capacity of 5,000 gallons

(4) Source ID 106 includes one (1) diesel fuel oil tank with a maximum capacity of 745 gallons

(5) Source ID 107 includes one (1) diesel fuel oil tank with a maximum capacity of 600 gallons.

(b) Electric fire pumps will not produce emissions; quantity and size will be determined at a later date.

(c) The following Requests for Determination (RFD) have been reviewed to date:

(1) RFD No. 11409 - four (4) 12,000-gallon storage tanks containing diesel fuel oil

(2) RFD No. 11427 - temporary installation and operation of two (2) Cummins EGENs (never brought onsite, project not pursued)

(3) RFD No. 11497 - temporary installation and operation of four (4) Aggreko EGENs (March 2026 - March 2027).



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