



**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY PROGRAM**

STATE ONLY NATURAL MINOR OPERATING PERMIT

Issue Date:	July 31, 2023	Effective Date:	February 16, 2024
Revision Date:	February 16, 2024	Expiration Date:	July 30, 2028
Revision Type:	Amendment		

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 operate the air emission source(s) more fully described in this permit. This Facility is subject to all terms and conditions specified in this permit. Nothing in this permit 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 permit condition is set forth in brackets. All terms and conditions in this permit are federally enforceable unless otherwise designated.

State Only Permit No: 08-00048

Natural Minor

Federal Tax Id - Plant Code: 46-4478173-1

Owner Information

Name: BEAVER DAM ENERGY LLC
Mailing Address: 14302 FNB PKWY
OMAHA, NE 68154-5212

Plant Information

Plant: BEAVER DAM ENERGY LLC/ELECTRIC GENERATING STATION
Location: 08 Bradford County 08913 Canton Township
SIC Code: 4911 Trans. & Utilities - Electric Services

Responsible Official

Name: BUCK HUNT
Title: VP
Phone: (402) 691 - 9500 Email: bhunt@tenaska.com

Permit Contact Person

Name: AUSTIN ZIGLER
Title: SR ANALYST - ENV PROGRAMS
Phone: (402) 758 - 6229 Email: azigler@tenaska.com

[Signature] _____

MUHAMMAD Q. ZAMAN, ENVIRONMENTAL PROGRAM MANAGER, NORTHCENTRAL REGION



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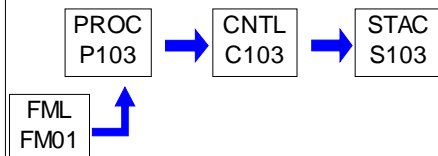
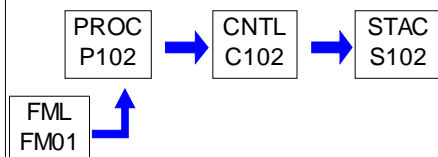
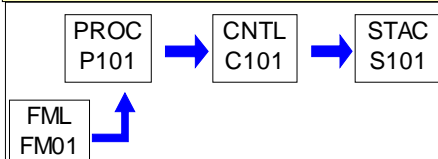
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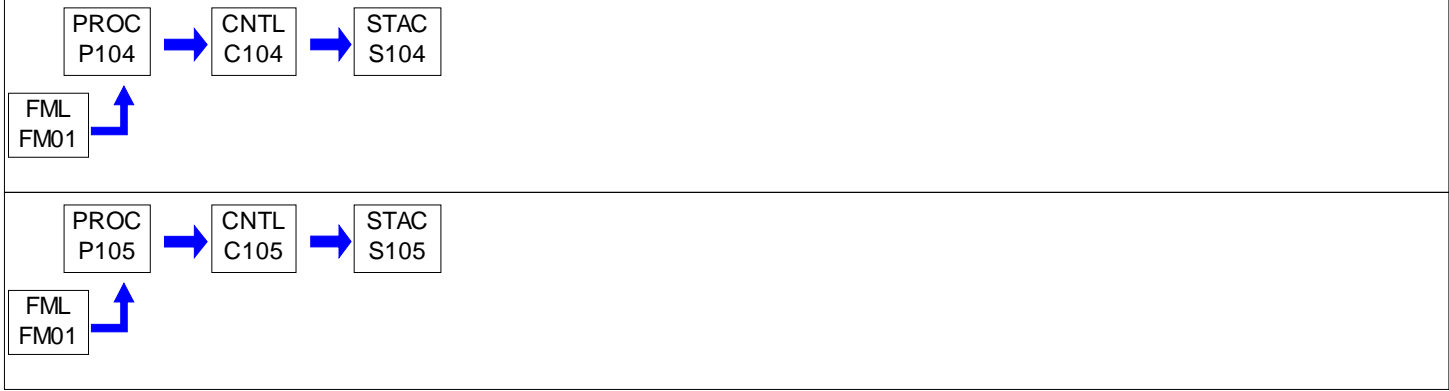
**SECTION A. Site Inventory List**

Source ID	Source Name	Capacity/Throughput	Fuel/Material
P101	6,023 BHP JENBACHER ENGINE #1	32.245 MMBTU/HR	
		0.037 MMCF/HR	Natural Gas
P102	6,023 BHP JENBACHER ENGINE #2	32.245 MMBTU/HR	
		0.037 MMCF/HR	Natural Gas
P103	6,023 BHP JENBACHER ENGINE #3	32.245 MMBTU/HR	
		0.037 MMCF/HR	Natural Gas
P104	6,023 BHP JENBACHER ENGINE #4	32.245 MMBTU/HR	
		0.037 MMCF/HR	Natural Gas
P105	6,023 BHP JENBACHER ENGINE #5	32.245 MMBTU/HR	
		0.037 MMCF/HR	Natural Gas
C101	CONCAT IC SCR/CATOX SYSTEM		
C102	CONCAT IC SCR/CATOX SYSTEM		
C103	CONCAT IC SCR/CATOX SYSTEM		
C104	CONCAT IC SCR/CATOX SYSTEM		
C105	CONCAT IC SCR/CATOX SYSTEM		
FM01	NATURAL GAS		
S101	ENGINE #1 STACK		
S102	ENGINE #2 STACK		
S103	ENGINE #3 STACK		
S104	ENGINE #4 STACK		
S105	ENGINE #5 STACK		

PERMIT MAPS



PERMIT MAPS



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

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

#002 [25 Pa. Code § 127.446]**Operating Permit Duration.**

- (a) This operating permit is issued for a fixed term of five (5) years and shall expire on the date specified on Page 1 of this permit.
- (b) The terms and conditions of the expired permit shall automatically continue pending issuance of a new operating permit, provided the permittee has submitted a timely and complete application and paid applicable fees required under 25 Pa. Code Chapter 127, Subchapter I and the Department is unable, through no fault of the permittee, to issue or deny a new permit before the expiration of the previous permit.

#003 [25 Pa. Code §§ 127.412, 127.413, 127.414, 127.446 & 127.703(b)]**Permit Renewal.**

- (a) The permittee shall submit a timely and complete application for renewal of the operating permit to the appropriate Regional Air Program Manager. The application for renewal of the operating permit shall be submitted at least six (6) months and not more than 18 months before the expiration date of this permit.
- (b) The application for permit renewal shall include the current permit number, a description of any permit revisions that occurred during the permit term, and any applicable requirements that were promulgated and not incorporated into the permit during the permit term. An application is complete if it contains sufficient information to begin processing the application, has the applicable sections completed and has been signed by a responsible official.
- (c) The permittee shall submit with the renewal application a fee for the processing of the application as specified in 25 Pa. Code § 127.703(b). The fees shall be made payable to "The Commonwealth of Pennsylvania Clean Air Fund" and submitted with the fee form to the respective regional office.
- (d) The renewal application shall also include submission of proof that the local municipality and county, in which the facility is located, have been notified in accordance with 25 Pa. Code § 127.413.
- (e) The application for renewal of the operating permit shall also include submission of supplemental compliance review forms in accordance with the requirements of 25 Pa. Code § 127.412(b) and § 127.412(j).
- (f) The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information as necessary to address any requirements that become applicable to the source after the permittee submits a complete application, but prior to the date the Department takes action on the permit application.

#004 [25 Pa. Code § 127.703]**Operating Permit Fees under Subchapter I.**

- (a) The permittee shall pay the annual operating permit maintenance fee according to the following fee schedule in either paragraph (1) or (2) in accordance with 25 Pa. Code § 127.703(d) on or before December 31 of each year for the next calendar year.
- (1) For a synthetic minor facility, a fee equal to:
- (i) Four thousand dollars (\$4,000) for calendar years 2021—2025.
 - (ii) Five thousand dollars (\$5,000) for calendar years 2026—2030.
 - (iii) Six thousand three hundred dollars (\$6,300) for the calendar years beginning with 2031.

**SECTION B. General State Only Requirements**

(2) For a facility that is not a synthetic minor, a fee equal to:

- (i) Two thousand dollars (\$2,000) for calendar years 2021—2025.
- (ii) Two thousand five hundred dollars (\$2,500) for calendar years 2026—2030.
- (iii) Three thousand one hundred dollars (\$3,100) for the calendar years beginning with 2031.

(b) The applicable fees shall be made payable to "The Commonwealth of Pennsylvania Clean Air Fund" with the permit number clearly indicated and submitted to the respective regional office.

#005 [25 Pa. Code §§ 127.450 (a)(4) and 127.464]**Transfer of Operating Permits.**

(a) This operating permit may not be transferred to another person, except in cases of transfer-of-ownership that are documented and approved by the Department.

(b) In accordance with 25 Pa. Code § 127.450(a)(4), a change in ownership of the source shall be treated as an administrative amendment if the Department determines that no other change in the permit is required and a written agreement has been submitted to the Department identifying the specific date of the transfer of permit responsibility, coverage and liability between the current and the new permittee and a compliance review form has been submitted to, and the permit transfer has been approved by, the Department.

(c) This operating permit is valid only for those specific sources and the specific source locations described in this permit.

#006 [25 Pa. Code § 127.441 and 35 P.S. § 4008]**Inspection and Entry.**

(a) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Department or authorized representatives of the Department to perform the following:

(1) Enter at reasonable times upon the permittee's premises where a source is located or emissions related activity is conducted, or where records are kept under the conditions of this permit;

(2) Have access to and copy, at reasonable times, any records that are kept under the conditions of this permit;

(3) Inspect at reasonable times, any facilities, equipment including monitoring and air pollution control equipment, practices, or operations regulated or required under this permit;

(4) Sample or monitor, at reasonable times, any substances or parameters, for the purpose of assuring compliance with the permit or applicable requirements as authorized by the Clean Air Act, the Air Pollution Control Act, or the regulations promulgated under the Acts.

(b) 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 or regulations adopted thereunder including denying the Department access to a source at this facility. Refusal of entry or access may constitute grounds for permit revocation and assessment of criminal and/or civil penalties.

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

#007 [25 Pa. Code §§ 127.441 & 127.444]**Compliance Requirements.**

(a) The permittee shall comply with the conditions of this operating permit. Noncompliance with this permit constitutes a violation of the Clean Air Act and the Air Pollution Control Act and is grounds for one or more of the following:

**SECTION B. General State Only Requirements**

- (1) Enforcement action
- (2) Permit termination, revocation and reissuance or modification
- (3) Denial of a permit renewal application

(b) A person may not cause or permit the operation of a source which is subject to 25 Pa. Code Article III unless the source(s) and air cleaning devices identified in the application for the plan approval and operating permit and the plan approval issued for the source is operated and maintained in accordance with specifications in the applications and the conditions in the plan approval and operating permit issued by the Department. A person may not cause or permit the operation of an air contamination source subject to 25 Pa. Code Chapter 127 in a manner inconsistent with good operating practices.

(c) For purposes of Sub-condition (b) of this permit condition, the specifications in applications for plan approvals and operating permits are the physical configurations and engineering design details which the Department determines are essential for the permittee's compliance with the applicable requirements in this State-Only permit. Nothing in this sub-condition shall be construed to create an independent affirmative duty upon the permittee to obtain a predetermination from the Department for physical configuration or engineering design detail changes made by the permittee.

#008 [25 Pa. Code § 127.441]**Need to Halt or Reduce Activity Not a Defense.**

It shall not be a defense for the permittee in an enforcement action that it was necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

#009 [25 Pa. Code §§ 127.442(a) & 127.461]**Duty to Provide Information.**

(a) The permittee shall submit reports to the Department containing information the Department may prescribe relative to the operation and maintenance of each source at the facility.

(b) The permittee shall furnish to the Department, in writing, information that the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Department copies of records that the permittee is required to maintain in accordance with this permit.

#010 [25 Pa. Code § 127.461]**Revising an Operating Permit for Cause.**

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

- (1) The permittee constructs or operates the source subject to the operating permit so that it is in violation of the Air Pollution Control Act, the Clean Air Act, the regulations thereunder, a plan approval, a permit or in a manner that causes air pollution.
- (2) 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.
- (3) The permittee has failed to submit a report required by the operating permit or an applicable regulation.
- (4) The EPA determines that the permit is not in compliance with the Clean Air Act or the regulations thereunder.

#011 [25 Pa. Code §§ 127.450, 127.462, 127.465 & 127.703]**Operating Permit Modifications**

(a) The permittee is authorized to make administrative amendments, minor operating permit modifications and significant operating permit modifications, under this permit, as outlined below:

**SECTION B. General State Only Requirements**

(b) Administrative Amendments. The permittee shall submit the application for administrative operating permit amendments (as defined in 25 Pa. Code § 127.450(a)), according to procedures specified in § 127.450 unless precluded by the Clean Air Act or its regulations.

(c) Minor Operating Permit Modifications. The permittee shall submit the application for minor operating permit modifications (as defined 25 Pa. Code § 121.1) in accordance with 25 Pa. Code § 127.462.

(d) Significant Operating Permit Modifications. The permittee shall submit the application for significant operating permit modifications in accordance with 25 Pa. Code § 127.465.

(e) The applicable fees shall be made payable to "The Commonwealth of Pennsylvania Clean Air Fund" with the permit number clearly indicated and submitted to the respective regional office.

#012 [25 Pa. Code § 127.441]**Severability Clause.**

The provisions of this permit are severable, and if any provision of this permit is determined by a court of competent jurisdiction to be invalid or unenforceable, such a determination will not affect the remaining provisions of this permit.

#013 [25 Pa. Code § 127.449]**De Minimis Emission Increases.**

(a) This permit authorizes de minimis emission increases in accordance with 25 Pa. Code § 127.449 so long as the permittee provides the Department with seven (7) days prior written notice before commencing any de minimis emissions increase. The written notice shall:

(1) Identify and describe the pollutants that will be emitted as a result of the de minimis emissions increase.

(2) Provide emission rates expressed in tons per year and in terms necessary to establish compliance consistent with any applicable requirement.

(b) The Department may disapprove or condition de minimis emission increases at any time.

(c) Except as provided below in (d), the permittee is authorized to make de minimis emission increases (expressed in tons per year) up to the following amounts without the need for a plan approval or prior issuance of a permit modification:

(1) Four tons of carbon monoxide from a single source during the term of the permit and 20 tons of carbon monoxide at the facility during the term of the permit.

(2) One ton of NO_x from a single source during the term of the permit and 5 tons of NO_x at the facility during the term of the permit.

(3) One and six-tenths tons of the oxides of sulfur from a single source during the term of the permit and 8.0 tons of oxides of sulfur at the facility during the term of the permit.

(4) Six-tenths of a ton of PM₁₀ from a single source during the term of the permit and 3.0 tons of PM₁₀ at the facility during the term of the permit. This shall include emissions of a pollutant regulated under Section 112 of the Clean Air Act unless precluded by the Clean Air Act, the regulations thereunder or 25 Pa. Code Article III.

(5) One ton of VOCs from a single source during the term of the permit and 5.0 tons of VOCs at the facility during the term of the permit. This shall include emissions of a pollutant regulated under Section 112 of the Clean Air Act unless precluded by the Clean Air Act, the regulations thereunder or 25 Pa. Code Article III.

(6) Other sources and classes of sources determined to be of minor significance by the Department.

(d) In accordance with § 127.14, the permittee is authorized to install the following minor sources without the need for a plan approval or permit modification:

**SECTION B. General State Only Requirements**

- (1) Air conditioning or ventilation systems not designed to remove pollutants generated or released from other sources.
 - (2) Combustion units rated at 2,500,000 or less Btu per hour of heat input.
 - (3) Combustion units with a rated capacity of less than 10,000,000 Btu per hour heat input fueled by natural gas supplied by a public utility or by commercial fuel oils which are No. 2 or lighter, viscosity less than or equal to 5.82 c St, and which meet the sulfur content requirements of 25 Pa. Code §123.22 (relating to combustion units). For purposes of this permit, commercial fuel oil shall be virgin oil which has no reprocessed, recycled or waste material added.
 - (4) Space heaters which heat by direct heat transfer.
 - (5) Laboratory equipment used exclusively for chemical or physical analysis.
 - (6) Other sources and classes of sources determined to be of minor significance by the Department.
- (e) This permit does not authorize de minimis emission increases if the emissions increase would cause one or more of the following:
- (1) Increase the emissions of a pollutant regulated under Section 112 of the Clean Air Act except as authorized in Subparagraphs (c)(4) and (5) of this permit condition.
 - (2) Subject the facility to the prevention of significant deterioration requirements in 25 Pa. Code Chapter 127, Subchapter D and/or the new source review requirements in Subchapter E.
 - (3) Violate any applicable requirement of this permit, the Air Pollution Control Act, the Clean Air Act, or the regulations promulgated under either of the acts.
- (f) Emissions authorized under this permit condition shall be included in the monitoring, recordkeeping and reporting requirements of this permit.
- (g) Except for de minimis emission increases, installation of minor sources made pursuant to this permit condition and Plan Approval Exemptions under 25 Pa. Code § 127.14 (relating to exemptions), the permittee is prohibited from making changes or engaging in activities that are not specifically authorized under this permit without first applying for a plan approval. In accordance with § 127.14(b), a plan approval is not required for the construction, modification, reactivation, or installation of the sources creating the de minimis emissions increase.
- (h) The permittee may not meet de minimis emission threshold levels by offsetting emission increases or decreases at the same source.

#014 [25 Pa. Code § 127.3]**Operational Flexibility.**

The permittee is authorized to make changes within the facility in accordance with the regulatory provisions outlined in 25 Pa. Code § 127.3 (relating to operational flexibility) to implement the operational flexibility requirements provisions authorized under Section 6.1(i) of the Air Pollution Control Act and the operational flexibility terms and conditions of this permit. The provisions in 25 Pa. Code Chapter 127 which implement the operational flexibility requirements include the following:

- (1) Section 127.14 (relating to exemptions)
- (2) Section 127.447 (relating to alternative operating scenarios)
- (3) Section 127.448 (relating to emissions trading at facilities with Federally enforceable emissions caps)
- (4) Section 127.449 (relating to de minimis emission increases)
- (5) Section 127.450 (relating to administrative operating permit amendments)

**SECTION B. General State Only Requirements**

(6) Section 127.462 (relating to minor operating permit modifications)

(7) Subchapter H (relating to general plan approvals and general operating permits)

#015 [25 Pa. Code § 127.11]**Reactivation**

(a) The permittee may not reactivate a source that has been out of operation or production for at least one year unless the reactivation is conducted in accordance with a plan approval granted by the Department or in accordance with reactivation and maintenance plans developed and approved by the Department in accordance with 25 Pa. Code § 127.11a(a).

(b) A source which has been out of operation or production for more than five (5) years but less than 10 years may be reactivated and will not be considered a new source if the permittee satisfies the conditions specified in 25 Pa. Code § 127.11a(b).

#016 [25 Pa. Code § 127.36]**Health Risk-based Emission Standards and Operating Practice Requirements.**

(a) When needed to protect public health, welfare and the environment from emissions of hazardous air pollutants from new and existing sources, the permittee shall comply with the health risk-based emission standards or operating practice requirements imposed by the Department, except as precluded by §§ 6.6(d)(2) and (3) of the Air Pollution Control Act [35 P.S. § 4006.6(d)(2) and (3)].

(b) A person challenging a performance or emission standard established by the Department has the burden to demonstrate that performance or emission standard does not meet the requirements of Section 112 of the Clean Air Act.

#017 [25 Pa. Code § 121.9]**Circumvention.**

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 25 Pa. Code Article III, except that with prior approval of the Department, the device or technique may be used for control of malodors.

#018 [25 Pa. Code §§ 127.402(d) & 127.442]**Reporting Requirements.**

(a) The permittee shall comply with the applicable reporting requirements of the Clean Air Act, the regulations thereunder, the Air Pollution Control Act and 25 Pa. Code Article III including Chapters 127, 135 and 139.

(b) The permittee shall submit reports to the Department containing information the Department may prescribe relative to the operation and maintenance of any air contamination source.

(c) Reports, test data, monitoring data, notifications and requests for renewal of the permit shall be submitted to the:

Regional Air Program Manager
PA Department of Environmental Protection
(At the address given in the permit transmittal letter, or otherwise notified)

(d) Any records or information including applications, forms, or reports submitted pursuant to this permit condition shall contain a certification by a responsible official as to truth, accuracy and completeness. The certifications submitted under this permit shall require a responsible official of the facility to certify that based on information and belief formed after reasonable inquiry, the statements and information in the documents are true, accurate and complete.

(e) Any records, reports or information submitted to the Department shall be available to the public except for such

**SECTION B. General State Only Requirements**

records, reports or information which meet the confidentiality requirements of § 4013.2 of the Air Pollution Control Act and §§ 112(d) and 114(c) of the Clean Air Act. The permittee may not request a claim of confidentiality for any emissions data generated for the facility.

#019 [25 Pa. Code §§ 127.441(c) & 135.5]**Sampling, Testing and Monitoring Procedures.**

(a) The permittee shall comply with the monitoring, recordkeeping or reporting requirements of 25 Pa. Code Chapter 139 and the other applicable requirements of 25 Pa. Code Article III and additional requirements related to monitoring, reporting and recordkeeping required by the Clean Air Act and the regulations thereunder including the Compliance Assurance Monitoring requirements of 40 CFR Part 64, where applicable.

(b) Unless alternative methodology is required by the Clean Air Act and regulations adopted thereunder, sampling, testing and monitoring required by or used by the permittee to demonstrate compliance with any applicable regulation or permit condition shall be conducted in accordance with the requirements of 25 Pa. Code Chapter 139.

#020 [25 Pa. Code §§ 127.441(c) and 135.5]**Recordkeeping.**

(a) The permittee shall maintain and make available, upon request by the Department, the following records of monitored information:

- (1) The date, place (as defined in the permit) and time of sampling or measurements.
- (2) The dates the analyses were performed.
- (3) The company or entity that performed the analyses.
- (4) The analytical techniques or methods used.
- (5) The results of the analyses.
- (6) The operating conditions as existing at the time of sampling or measurement.

(b) The permittee shall retain records of any required monitoring data and supporting information for at least five (5) years from the date of the monitoring, sample, measurement, report or application. Supporting information includes the calibration data and maintenance records and original strip-chart recordings for continuous monitoring instrumentation, and copies of reports required by the permit.

(c) The permittee shall maintain and make available to the Department upon request, records including computerized records that may be necessary to comply with the reporting, recordkeeping and emission statement requirements in 25 Pa. Code Chapter 135 (relating to reporting of sources). In accordance with 25 Pa. Code Chapter 135, § 135.5, such records may include records of production, fuel usage, maintenance of production or pollution control equipment or other information determined by the Department to be necessary for identification and quantification of potential and actual air contaminant emissions.

#021 [25 Pa. Code § 127.441(a)]**Property Rights.**

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

#022 [25 Pa. Code § 127.447]**Alternative Operating Scenarios.**

The permittee is authorized to make changes at the facility to implement alternative operating scenarios identified in this permit in accordance with 25 Pa. Code § 127.447.

**SECTION B. General State Only Requirements****#023 [25 Pa. Code §135.3]****Reporting**

(a) If the facility is a Synthetic Minor Facility, the permittee shall submit by March 1 of each year an annual emissions report for the preceding calendar year. The report shall include information for all active 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. All air emissions from the facility should be estimated and reported.

(b) A source owner or operator of a Synthetic Minor Facility may request an extension of time from the Department for the filing of an annual emissions report, and the Department may grant the extension for reasonable cause.

#024 [25 Pa. Code §135.4]**Report Format**

If applicable, the emissions reports shall contain sufficient information to enable the Department to complete its emission inventory. Emissions reports shall be made by the source owner or operator in a format specified by the Department.

**SECTION C. Site Level 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 fugitive air contaminants 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.
- (7) Blasting in open pit mines. Emissions from drilling are not considered emission from blasting.
- (8) Sources and classes of sources other than those identified 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:
 - (a) The emissions are of minor significance with respect to causing air pollution,
 - (b) 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 Condition #001(1)-(7) above, if the emissions are visible at the point the emissions pass outside the person's property.

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

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

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

004 [25 Pa. Code §123.42]**Exceptions**

The emission limitations of 25 Pa. Code Section 123.41 shall not apply when:

- (1) The presence of uncombined water is the only reason for failure of the emission to meet the limitations,
- (2) The emission results from the operation of equipment used solely to train and test persons in observing the opacity of visible emissions,
- (3) The emission results from sources specified in 25 Pa. Code Section 123.1(a)(1)-(9).

II. TESTING REQUIREMENTS.**# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) Pursuant to 25 Pa. Code § 139.3, at least 90 calendar days prior to commencing a EPA reference method testing program, a test protocol shall be submitted to the Department for review and approval. Electronic copies shall be sent to the Northcentral Regional Office Air Quality Program Manager and the PSIMS Administrator in Central Office. The test protocol shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.

(b) Pursuant to 25 Pa. Code § 139.3, at least 15 calendar days prior to commencing an emission testing program, notification as to the date and time of testing shall be given to the Northcentral Regional Office. Notification shall also be sent to the Division of Source Testing and Monitoring. Notification shall not be made without prior receipt of a protocol acceptance letter from the Department.

(c) If applicable, pursuant to 40 CFR § 60.8(a), 40 CFR § 61.13(f) and 40 CFR § 63.7(g), complete test reports shall be submitted to the Department no later than 60 calendar days after completion of the on-site testing portion of an EPA reference method test program.

(d) Pursuant to 25 Pa. Code § 139.53(b) a complete test report shall include a summary of the emission results on the first page of the report indicating if each pollutant measured is within permitted limits and a statement of compliance or

**SECTION C. Site Level Requirements**

noncompliance with all applicable permit conditions. The summary results will include, at a minimum, the following information:

1. A statement that the owner or operator has reviewed the report from the emissions testing body and agrees with the findings.
2. Permit number(s) and condition(s) which are the basis for the evaluation.
3. Summary of results with respect to each applicable permit condition.
4. Statement of compliance or non-compliance with each applicable permit condition.

(e) Pursuant to 25 Pa. Code § 139.3, all submittals shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.

(f) All testing shall be performed in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection.

(g) Pursuant to 25 Pa. Code §§ 139.53(a)(1) and 139.53(a)(3), electronic copies of all submittals, besides notifications, shall be sent to the Northcentral Regional Office Air Quality Program Manager, with deadlines verified. In addition, an electronic copy shall be sent to the PSIMS Administrator in Central Office. Email addresses are provided on the PA DEP website.

(h) The permittee shall insure all federal reporting requirements contained in the applicable subpart of 40 CFR are followed, including timelines more stringent than those contained herein. In the event of an inconsistency or any conflicting requirements between state and the federal, the most stringent provision, term, condition, method or rule shall be used by default.

006 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12.]

(a) The permittee shall perform leak detection and repair (LDAR) monitoring on all high pressure (~1,000 psig) components.

(b) The LDAR monitoring must be conducted on each pump, valve, relief valve, flange and connector, if applicable, in high pressure natural gas service using an optical gas imaging camera such as a FLIR camera or a gas leak detector capable of reading methane concentrations in air of 0% to 5% with an accuracy of +/- 0.2%.

(c) The permittee may request, in writing, the use of other leak detection monitoring devices, to be approved, in writing, by the Department. Such LDAR monitoring equipment shall be operated in accordance with manufacturer-recommended procedures and, where applicable, Method 21 specified in 40 CFR Part 60, Appendix A. Each LDAR monitoring device shall be calibrated before use on each day of its use by following the manufacturer-recommended procedures or the procedure set forth at Method 21 specified in 40 CFR Part 60, Appendix A.

(d) Leak means:

(i) Any emissions imaged by the optical gas instrument;

(ii) Indications of liquids dripping;

(iii) Indications by a sensor that a seal or barrier fluid system has failed;

(iv) Screening results using a gas leak detector exceed 2.5% methane and/or 500 ppm of VOCs.

(e) A release from any equipment or component designed by the manufacturer to protect the equipment, controller(s), safety of personnel, to prevent ground water contamination, to prevent gas migration, or an emergency situation is not considered a leak.

(f) The permittee shall monitor each pump, valve, relief valve, flange and connector, if applicable, in high pressure natural gas service at least annually.

(g) Leaks shall be repaired no later than 15 calendar days after a leak is detected, unless the facility shuts down or determines that ordering of replacement parts is necessary for repair of the leak(s).

(h) A leak is considered repaired if it is adjusted or otherwise altered and one of the following can be demonstrated after such adjustment or alteration:

(i) No detectable emissions consistent with EPA Method 21 specified in 40 CFR Part 60, Appendix A;

(ii) A concentration of 2.5% methane or less using a gas leak detector and a VOC concentration of 500 ppm or less;

(iii) No visible leak image when using an optical gas imaging camera; if an optical gas imaging camera was originally used to detect the leak;

(iv) No bubbling at leak interface using a soap solution bubble test specified in EPA Method 21; or a procedure based on the formation of bubbles in a soap solution that is sprayed on a potential leak source may be used for those sources that

**SECTION C. Site Level Requirements**

do not have continuously moving parts and that do not have a surface temperature greater than the boiling point or less than the freezing point of the soap solution; or

(v) Any other method approved, in writing, by the Department.

(i) If a leak is not repaired within fifteen (15) days after it is detected, the leaking equipment or component must be listed on a Delay of Repair (DOR) List. The permittee must submit a written request to the appropriate regional office for an extension of the 15 day repair deadline. This includes extensions required due to facility shutdowns and/or the ordering of replacement parts. The written request shall also include the reason(s) for the extension request and the schedule for completion of the repairs. The Department may grant an extension of the LDAR deadline based upon the written request.

(j) The optical gas imaging camera or other Department-approved gas leak detection equipment shall be operated in accordance with manufacturer-recommended procedures.

(k) The permittee shall, at a minimum, on a monthly basis perform audible, visual, and olfactory (AVO) inspections to detect leaks from the equipment listed above.

007 [25 Pa. Code §139.1]**Sampling facilities.**

Upon the request of the Department, the permittee shall provide adequate sampling ports, safe sampling platforms and adequate utilities for the performance by the Department of tests on a source. The Department will set forth, in the request, the time period in which the facilities shall be provided as well as the specifications for such facilities.

008 [25 Pa. Code §139.11]**General requirements.**

(a) As specified in 25 Pa. Code Section 139.11(1), performance tests shall be conducted while the source is operating at maximum routine operating conditions or under such other conditions, within the capacity of the equipment, as may be requested by the Department.

(b) As specified in 25 Pa. Code Section 139.11(2), the Department will consider test results for approval where sufficient information is provided to verify the source conditions existing at the time of the test and where adequate data is available to show the manner in which the test was conducted. Information submitted to the Department shall include, as a minimum, all of the following:

- (1) A thorough source description, including a description of any air cleaning devices and the flue,
- (2) Process conditions, for example, the charging rate of raw material or rate of production of final product, boiler pressure, oven temperature, and other conditions, which may effect emissions from the process,
- (3) The location of sampling ports,
- (4) Effluent characteristics, including velocity, temperature, moisture content, gas density (percentage of CO, CO₂, O₂ and N₂), static and barometric pressures,
- (5) Sample collection techniques employed, including procedures used, equipment descriptions and data to verify that isokinetic sampling for particulate matter collection occurred and that acceptable test conditions were met,
- (6) Laboratory procedures and results,
- (7) Calculated results.

III. MONITORING REQUIREMENTS.**# 009 [25 Pa. Code §123.43]****Measuring techniques**

Visible emissions may be measured using either of the following:

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

010 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

(a) The permittee shall conduct a weekly inspection of the facility during daylight hours while the facility is operating to detect the presence of visible air contaminant emissions, visible fugitive air contaminant emissions and malodorous air contaminant emissions in excess of applicable emission limits.

(b) All visible air contaminant emissions, visible fugitive air contaminant emissions and malodorous air contaminant emissions observed to be in excess of an emission limit shall be reported to the manager of the facility at once.

**SECTION C. Site Level Requirements****IV. RECORDKEEPING REQUIREMENTS.****# 011 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

- (a) The permittee shall keep records of the emission estimates and supporting calculations on a monthly basis used to verify compliance with the carbon monoxide (CO), nitrogen oxides (NO_x), particulate matter less than 10 microns in size (PM₁₀), sulfur oxides (SO_x), volatile organic compounds (VOCs), individual hazardous air pollutant (HAP), and combined hazardous air pollutants (HAPs) emissions limitations in any 12 consecutive month period for all sources at the facility.
- (b) These records shall be retained for a minimum of 5 years and shall be made available to the Department upon request.

012 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

- (a) The permittee shall keep records of the weekly inspections required pursuant to this operating permit. The records shall include the name of the company representative performing each inspection, the date and time of each inspection, a description of any visible air contaminant emission, fugitive air contaminant emission or malodorous air contamination observed to be in excess of an emission limit, the name of the facility manager to whom notice of any observed excessive emission was given, a description of any corrective action taken to eliminate/reduce any observed excessive emission and the date and time any such corrective action taken.
- (b) All records generated pursuant to this plan approval condition shall be retained for a minimum of five (5) years and shall be made available to the Department upon request.

013 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

- (a) The permittee shall maintain a log for the results of each monthly AVO inspections, including date of each inspection performance and the name of the company representative performing the inspection.
- (b) Leaks, repair methods and repair delays shall be recorded and maintained for a period of five years.
- (c) All information generated to satisfy this recordkeeping condition shall be kept for a minimum of 5 years and shall be made available to the Department upon request.

014 [40 CFR Part 98 Mandatory Greenhouse Gas Reporting §40 CFR 98.3]**Subpart A - General Provision****What are the general monitoring, reporting, recordkeeping and verification requirements of this part?**

The permittee shall maintain records on a monthly basis in accordance with 40 CFR 98.3(g) beginning with the first operating month. The permittee shall retain all required records for at least 3 years from the date of submission of the annual GHG report for the reporting year in which the record was generated. Upon request by the Administrator, the records required under this section must be made available to EPA.

V. REPORTING REQUIREMENTS.**# 015 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The submission of all requests, reports, applications, submittals and other communications required by the Standards of Performance for New Stationary Sources (40 CFR Part 60) and/or the National Emissions Standards for Hazardous Air Pollutants (40 CFR Part 63) shall be submitted to both the U. S. Environmental Protection Agency and the Department. The Environmental Protection Agency copies may be sent to:

R3_Air_Apps_and_Notices@epa.gov

and

The Pennsylvania Department of Environmental Protection
Air Quality Program Manager
208 W. Third Street, Suite 101
Williamsport, PA 17701-6448

016 [25 Pa. Code §127.442]**Reporting requirements.**

- (a) The permittee shall report malfunctions, emergencies or incidents of excess emissions to the Department. 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

**SECTION C. Site Level Requirements**

reasonably unforeseeable events beyond the control of the owner or operator of a facility which requires immediate corrective action to restore normal operation and which causes the emission source to exceed emissions, due to unavoidable increases in emissions attributable to the situation. An emergency shall not include situations caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.

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

(c) The report shall describe the following:

1. name, permit or authorization number, and location of the facility,
2. nature and cause of the malfunction, emergency or incident,
3. date and time when the malfunction, emergency or incident was first observed,
4. expected duration of excess emissions,
5. estimated rate of emissions,
6. corrective actions or preventative measures taken.

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

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

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

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

017 [40 CFR Part 98 Mandatory Greenhouse Gas Reporting §40 CFR 98.3]**Subpart A - General Provision****What are the general monitoring, reporting, recordkeeping and verification requirements of this part?**

The permittee shall submit an annual GHG report to the Administrator as specified in 40 CFR 98.3.

VI. WORK PRACTICE REQUIREMENTS.**# 018 [25 Pa. Code §123.1]****Prohibition of certain fugitive emissions**

The permittee shall take all reasonable actions to prevent particulate matter from becoming airborne as specified in 25 Pa. Code Section 123.1 subsection(s) (a)(1)-(7) or (a)(9). These actions shall include, but not be limited to, the following:

- (1) Use, where possible, of water or chemicals for control of dust in the demolition of buildings or structures, construction operations, the grading of roads or the clearing of land,
- (2) Application of asphalt, oil, or suitable chemicals on dirt roads, material stockpiles and other surfaces which may give rise to airborne dusts,
- (3) Paving and maintenance of roadways,
- (4) 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 other means.

VII. ADDITIONAL REQUIREMENTS.**# 019 [25 Pa. Code §121.7]****Prohibition of air pollution.**

The permittee shall not permit air pollution as that term is defined in the Pennsylvania Air Pollution Control Act (35 P.S.

**SECTION C. Site Level Requirements**

Sections 4001-4015).

020 [25 Pa. Code §123.31]**Limitations**

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

021 [25 Pa. Code §129.14]**Open burning operations**

The permittee shall not permit the open burning of material at the facility unless in accordance with 25 Pa. Code Section 129.14.

022 [40 CFR Part 98 Mandatory Greenhouse Gas Reporting §40 CFR 98.1]**Subpart A - General Provision****Purpose and scope.**

This facility is subject to the mandatory greenhouse gas reporting requirements of 40 CFR 98.

VIII. COMPLIANCE CERTIFICATION.

No additional compliance certifications exist except as provided in other sections of this permit including Section B (relating to State Only General Requirements).

IX. COMPLIANCE SCHEDULE.

No compliance milestones exist.

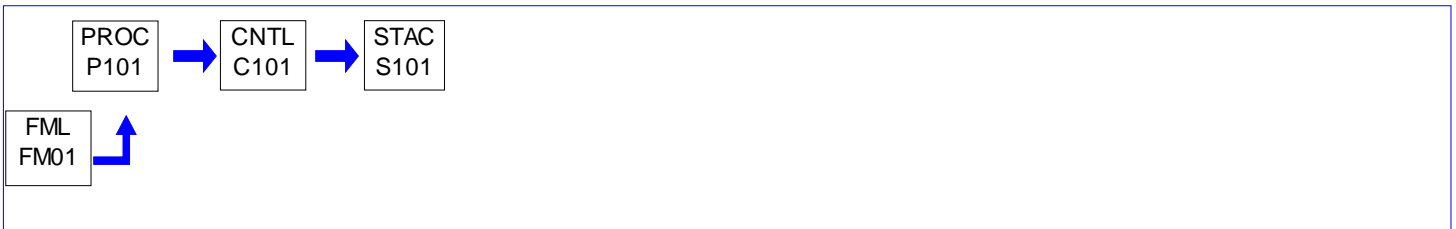
**SECTION D. Source Level Requirements**

Source ID: P101

Source Name: 6,023 BHP JENBACHER ENGINE #1

Source Capacity/Throughput: 32.245 MMBTU/HR

0.037 MMCF/HR Natural Gas

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12. Compliance with this streamlined condition assures compliance with the requirements of 25 Pa. Code Section 123.41]

The emission of visible air contaminants into the outdoor atmosphere from Source ID P101 shall not occur in such a manner that the opacity of the emission is either of the following:

- (1) Equal to or greater than 10% for a period or periods aggregating more than three minutes in any 1 hour,
- (2) Equal to or greater than 30% at any time.

002 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12. Compliance with this streamlined condition assures compliance with the requirements of 25 Pa. Code Sections 123.21 and 123.13, 40 CFR Part 60 Subpart JJJJ and 40 CFR Part 63 Subpart ZZZZ.]

The air contaminant emissions from Source ID P101 shall not exceed the following limitations:

- (a) nitrogen oxides (NO_x, expressed as NO₂) - 0.06 grams per brake horsepower-hour and 3.49 tons in any 12 consecutive month period,
- (b) carbon monoxide (CO) - 0.119 grams per brake horsepower-hour and 6.92 tons in any 12 consecutive month period,
- (c) total combined volatile organic compounds (VOCs) - 0.076 grams per brake horsepower-hour and 4.42 tons in any 12 consecutive month period,
- (d) sulfur oxides (SO_x, expressed as SO₂) – 0.000588 pounds per million Btu and 0.083 tons in any 12 consecutive month period,
- (e) particulate matter (PM/PM10/PM2.5) - 0.024 grams per brake horsepower-hour and 1.40 tons in any 12 consecutive month period,
- (f) formaldehyde - 0.025 grams per brake horsepower-hour and 1.49 tons in any 12 consecutive month period,
- (g) ammonia slip (from Concat IC SCR/catox System) – 10 ppmvd at 15% oxygen.

Fuel Restriction(s).**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12.]

Source ID P101 shall be fired only on natural gas.

**SECTION D. Source Level Requirements****II. TESTING REQUIREMENTS.****# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Compliance with this condition ensures compliance with the testing requirements specified in 40 CFR 60.4243(b)(2)(ii).]

Every 8,760 hours of engine operation or 3 years, whichever comes first, the permittee shall perform nitrogen oxide (NO_x, expressed as NO₂), carbon monoxide, volatile organic compound and formaldehyde source tests upon this engine to verify compliance with the emission limitations specified in this operating permit. In addition to the site level testing requirements specified in Section C of this operating permit, the permittee shall also comply with the following:

- (a) The performance test shall consist of three (3) separate test runs and each run shall last at least in one (1) hour in duration.
- (b) All testing is to be done using EPA reference test methods acceptable to the Department and all testing is to be performed while this engine is operating at least 90% of maximum capacity (at least 5,420 brake horsepower).

005 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

(a) Every 2,500 hours of operation and no sooner than forty-five (45) days from the previous test, the permittee shall perform periodic monitoring for NO_x and CO emissions to verify the continued compliance of Source ID P101.

(b) A Department-approved test that has been performed within 45 days prior to the scheduled periodic monitoring may be used in lieu of the periodic monitoring for that time period.

(c) A portable gas analyzer may be used to satisfy the requirements of this condition utilizing three test runs of twenty (20) minutes for each test run.

(d) The portable gas analyzer shall be used and maintained according to the manufacturer's specifications and the procedures specified in ASTM D 6522 or equivalent as approved by the Department.

III. MONITORING REQUIREMENTS.**# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12.]

With respect to the operation of Source ID P101, the permittee shall continuously monitor the following parameters whenever the engine is in operation:

- (a) electric output of the generator,
- (b) natural gas/air mixture temperature,
- (c) natural gas/air mixture boost pressure,
- (d) hours of operation.

007 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12.]

With respect to the operation of the Concat IC SCR/catox system, ID C101, the permittee shall continuously monitor the following parameters whenever Source ID P101 is in operation:

- (a) urea injection rate,
- (b) catalyst inlet temperature,
- (c) pressure drop across the catalyst bed.

Additionally, whenever the catalyst pressure drop equals or exceeds 22 inches w.g. and/or the catalyst inlet temperature drops below 575°F for more than 10 seconds, an alarm will sound, and the urea injection system to the SCR will shut off.

**SECTION D. Source Level Requirements****IV. RECORDKEEPING REQUIREMENTS.****# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall maintain comprehensive, accurate records of the following information:

- (1) The emissions estimates and supporting calculations on a monthly basis used to verify compliance with the nitrogen oxide, carbon monoxide, volatile organic compound, particulate matter, sulfur oxide, and formaldehyde emission limitations for Source ID P101 in any 12 consecutive month period.
- (2) The pressure drop and the inlet gas temperature of the Concat IC SCR/catox system (C101) on a continuous basis via a data acquisition system.
- (3) The hours of operation of Source ID P101 on monthly basis.

(b) All records generated pursuant to this plan approval condition shall be kept for a minimum of five (5) years and made available to the Department upon request.

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?**

The permittee shall maintain a maintenance plan and records of maintenance conducted on Source ID P101. These records shall be maintained for at least five years and made available to the Department upon request.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.**# 010 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12.]

Source ID P101 shall be equipped with a non-resettable meter that will indicate the hours of operation.

011 [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?**

In accordance with 40 CFR 60.4243(b)(2)(ii), the permittee shall operate Source ID P101 in a manner consistent with good air pollution control practice for minimizing emissions.

VII. ADDITIONAL REQUIREMENTS.**# 012 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12.]

Source ID P101 is a 6,023 brake horsepower Jenbacher model J624 GS four stroke, lean burn natural gas-fired engine/generator set (serial #1123645) equipped with a LEANOX Lean Mixture Combustion Control system and a Johnson Matthey, LLC Concat IC SCR/catox system (ID C101). ID C101 is equipped with the following:

- (a) a selective catalytic (NO_x) reduction (SCR) system consisting of a urea injection system and catalyst,
- (b) an ammonia catalyst to minimize ammonia slip from the SCR system,
- (c) a catalyst for the oxidation of carbon monoxide and volatile organic compounds,
- (d) a monitor that accurately measures the catalyst inlet temperature,
- (e) a monitor that accurately measure the pressure drop across the catalyst bed.

**SECTION D. Source Level Requirements****# 013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4230]****Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines****Am I subject to this subpart?**

Source ID P101 is subject to the requirements of the Standards of Performance for Stationary Spark Ignition Internal Combustion Engines pursuant to 40 CFR Part 60 Subpart JJJJ, Section 60.4230 through 60.4247. The permittee shall comply with all applicable requirements of 40 CFR Part 60 Subpart JJJJ, Section 60.4230 through 60.4247.

014 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6585]**Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****Am I subject to this subpart?**

Source ID P101 is subject to the requirements of the National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines pursuant to 40 CFR Part 63 Subpart ZZZZ Section 63.6580 through 63.6675. In accordance with 40 CFR 63.6590(c)(1), the permittee shall comply with Subpart ZZZZ by meeting the requirements of 40 CFR Part 60 Subpart JJJJ, for spark ignition engines.

**SECTION D. Source Level Requirements**

Source ID: P102

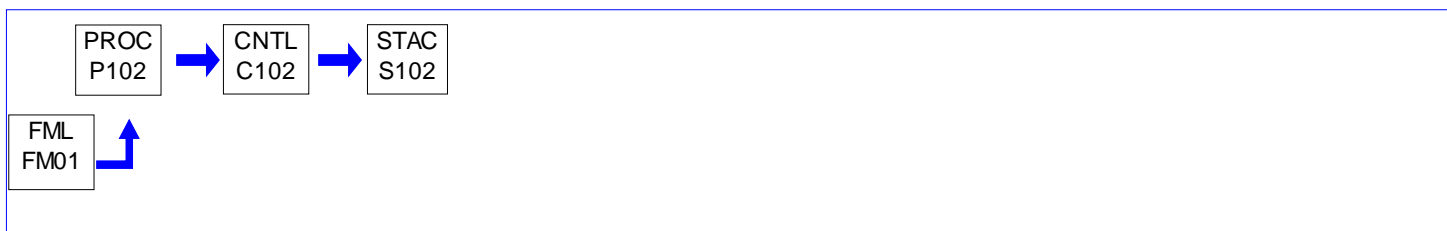
Source Name: 6,023 BHP JENBACHER ENGINE #2

Source Capacity/Throughput:

32.245 MMBTU/HR

0.037 MMCF/HR

Natural Gas

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12. Compliance with this streamlined condition assures compliance with the requirements of 25 Pa. Code Section 123.41]

The emission of visible air contaminants into the outdoor atmosphere from Source ID P102 shall not occur in such a manner that the opacity of the emission is either of the following:

- (1) Equal to or greater than 10% for a period or periods aggregating more than three minutes in any 1 hour,
- (2) Equal to or greater than 30% at any time.

002 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12. Compliance with this streamlined condition assures compliance with the requirements of 25 Pa. Code Sections 123.21 and 123.13, 40 CFR Part 60 Subpart JJJJ and 40 CFR Part 63 Subpart ZZZZ.]

The air contaminant emissions from Source ID P102 shall not exceed the following limitations:

- (a) nitrogen oxides (NO_x, expressed as NO₂) - 0.06 grams per brake horsepower-hour and 3.49 tons in any 12 consecutive month period,
- (b) carbon monoxide (CO) - 0.119 grams per brake horsepower-hour and 6.92 tons in any 12 consecutive month period,
- (c) total combined volatile organic compounds (VOCs) - 0.076 grams per brake horsepower-hour and 4.42 tons in any 12 consecutive month period,
- (d) sulfur oxides (SO_x, expressed as SO₂) – 0.000588 pounds per million Btu and 0.083 tons in any 12 consecutive month period,
- (e) particulate matter (PM/PM10/PM2.5) - 0.024 grams per brake horsepower-hour and 1.40 tons in any 12 consecutive month period,
- (f) formaldehyde - 0.025 grams per brake horsepower-hour and 1.49 tons in any 12 consecutive month period,
- (g) ammonia slip (from Concat IC SCR/catox System) – 10 ppmvd at 15% oxygen.

Fuel Restriction(s).**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12.]

Source ID P102 shall be fired only on natural gas.

**SECTION D. Source Level Requirements****II. TESTING REQUIREMENTS.****# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Compliance with this condition ensures compliance with the testing requirements specified in 40 CFR 60.4243(b)(2)(ii).]

Every 8,760 hours of engine operation or 3 years, whichever comes first, the permittee shall perform nitrogen oxide (NO_x, expressed as NO₂), carbon monoxide, volatile organic compound and formaldehyde source tests upon this engine to verify compliance with the emission limitations specified in this operating permit. In addition to the site level testing requirements specified in Section C of this operating permit, the permittee shall also comply with the following:

- (a) The performance test shall consist of three (3) separate test runs and each run shall last at least in one (1) hour in duration.
- (b) All testing is to be done using EPA reference test methods acceptable to the Department and all testing is to be performed while this engine is operating at least 90% of maximum capacity (at least 5,420 brake horsepower).

005 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

(a) Every 2,500 hours of operation and no sooner than forty-five (45) days from the previous test, the permittee shall perform periodic monitoring for NO_x and CO emissions to verify the continued compliance of Source ID P102.

(b) A Department-approved test that has been performed within 45 days prior to the scheduled periodic monitoring may be used in lieu of the periodic monitoring for that time period.

(c) A portable gas analyzer may be used to satisfy the requirements of this condition utilizing three test runs of twenty (20) minutes for each test run.

(d) The portable gas analyzer shall be used and maintained according to the manufacturer's specifications and the procedures specified in ASTM D 6522 or equivalent as approved by the Department.

III. MONITORING REQUIREMENTS.**# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12.]

With respect to the operation of Source ID P102, the permittee shall continuously monitor the following parameters whenever the engine is in operation:

- (a) electric output of the generator,
- (b) natural gas/air mixture temperature,
- (c) natural gas/air mixture boost pressure,
- (d) hours of operation.

007 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12.]

With respect to the operation of the Concat IC SCR/catox system, ID C102, the permittee shall continuously monitor the following parameters whenever Source ID P102 is in operation:

- (a) urea injection rate,
- (b) catalyst inlet temperature,
- (c) pressure drop across the catalyst bed.

Additionally, whenever the catalyst pressure drop equals or exceeds 22 inches w.g. and/or the catalyst inlet temperature drops below 575°F for more than 10 seconds, an alarm will sound, and the urea injection system to the SCR will shut off.

**SECTION D. Source Level Requirements****IV. RECORDKEEPING REQUIREMENTS.****# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall maintain comprehensive, accurate records of the following information:

- (1) The emissions estimates and supporting calculations on a monthly basis used to verify compliance with the nitrogen oxide, carbon monoxide, volatile organic compound, particulate matter, sulfur oxide, and formaldehyde emission limitations for Source ID P102 in any 12 consecutive month period.
- (2) The pressure drop and the inlet gas temperature of the Concat IC SCR/catox system (C102) on a continuous basis via a data acquisition system.
- (3) The hours of operation of Source ID P102 on monthly basis.

(b) All records generated pursuant to this plan approval condition shall be kept for a minimum of five (5) years and made available to the Department upon request.

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?**

The permittee shall maintain a maintenance plan and records of maintenance conducted on Source ID P102. These records shall be maintained for at least five years and made available to the Department upon request.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.**# 010 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12.]

Source ID P102 shall be equipped with a non-resettable meter that will indicate the hours of operation.

011 [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?**

In accordance with 40 CFR 60.4243(b)(2)(ii), the permittee shall operate Source ID P102 in a manner consistent with good air pollution control practice for minimizing emissions.

VII. ADDITIONAL REQUIREMENTS.**# 012 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12.]

Source ID P102 is a 6,023 brake horsepower Jenbacher model J624 GS four stroke, lean burn natural gas-fired engine/generator set (serial #1123625) equipped with a LEANOX Lean Mixture Combustion Control system and a Johnson Matthey, LLC Concat IC SCR/catox system (ID C102). ID C102 is equipped with the following:

- (a) a selective catalytic (NO_x) reduction (SCR) system consisting of a urea injection system and catalyst,
- (b) an ammonia catalyst to minimize ammonia slip from the SCR system,
- (c) a catalyst for the oxidation of carbon monoxide and volatile organic compounds,
- (d) a monitor that accurately measures the catalyst inlet temperature,
- (e) a monitor that accurately measure the pressure drop across the catalyst bed.

**SECTION D. Source Level Requirements****# 013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4230]****Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines****Am I subject to this subpart?**

Source ID P102 is subject to the requirements of the Standards of Performance for Stationary Spark Ignition Internal Combustion Engines pursuant to 40 CFR Part 60 Subpart JJJJ, Section 60.4230 through 60.4247. The permittee shall comply with all applicable requirements of 40 CFR Part 60 Subpart JJJJ, Section 60.4230 through 60.4247.

014 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6585]**Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****Am I subject to this subpart?**

Source ID P102 is subject to the requirements of the National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines pursuant to 40 CFR Part 63 Subpart ZZZZ Section 63.6580 through 63.6675. In accordance with 40 CFR 63.6590(c)(1), the permittee shall comply with Subpart ZZZZ by meeting the requirements of 40 CFR Part 60 Subpart JJJJ, for spark ignition engines.

**SECTION D. Source Level Requirements**

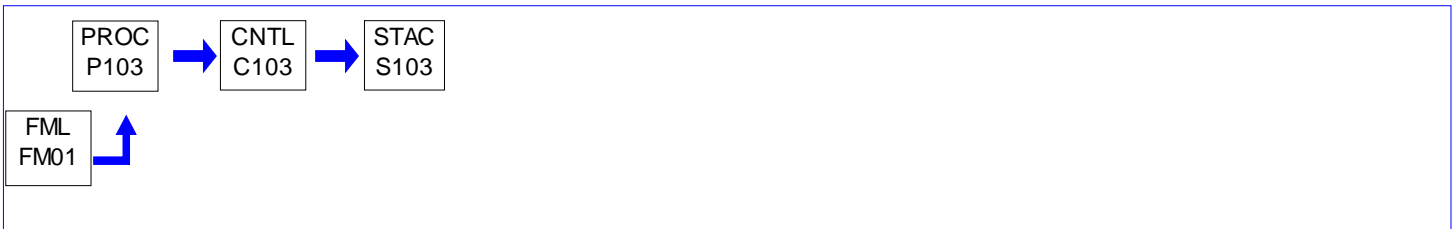
Source ID: P103

Source Name: 6,023 BHP JENBACHER ENGINE #3

Source Capacity/Throughput: 32.245 MMBTU/HR

0.037 MMCF/HR

Natural Gas

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12. Compliance with this streamlined condition assures compliance with the requirements of 25 Pa. Code Section 123.41]

The emission of visible air contaminants into the outdoor atmosphere from Source ID P103 shall not occur in such a manner that the opacity of the emission is either of the following:

- (1) Equal to or greater than 10% for a period or periods aggregating more than three minutes in any 1 hour,
- (2) Equal to or greater than 30% at any time.

002 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12. Compliance with this streamlined condition assures compliance with the requirements of 25 Pa. Code Sections 123.21 and 123.13, 40 CFR Part 60 Subpart JJJJ and 40 CFR Part 63 Subpart ZZZZ.]

The air contaminant emissions from Source ID P103 shall not exceed the following limitations:

- (a) nitrogen oxides (NO_x, expressed as NO₂) - 0.06 grams per brake horsepower-hour and 3.49 tons in any 12 consecutive month period,
- (b) carbon monoxide (CO) - 0.119 grams per brake horsepower-hour and 6.92 tons in any 12 consecutive month period,
- (c) total combined volatile organic compounds (VOCs) - 0.076 grams per brake horsepower-hour and 4.42 tons in any 12 consecutive month period,
- (d) sulfur oxides (SO_x, expressed as SO₂) – 0.000588 pounds per million Btu and 0.083 tons in any 12 consecutive month period,
- (e) particulate matter (PM/PM10/PM2.5) - 0.024 grams per brake horsepower-hour and 1.40 tons in any 12 consecutive month period,
- (f) formaldehyde - 0.025 grams per brake horsepower-hour and 1.49 tons in any 12 consecutive month period,
- (g) ammonia slip (from Concat IC SCR/catox System) – 10 ppmvd at 15% oxygen.

Fuel Restriction(s).**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12.]

Source ID P103 shall be fired only on natural gas.

**SECTION D. Source Level Requirements****II. TESTING REQUIREMENTS.****# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Compliance with this condition ensures compliance with the testing requirements specified in 40 CFR 60.4243(b)(2)(ii).]

Every 8,760 hours of engine operation or 3 years, whichever comes first, the permittee shall perform nitrogen oxide (NO_x, expressed as NO₂), carbon monoxide, volatile organic compound and formaldehyde source tests upon this engine to verify compliance with the emission limitations specified in this operating permit. In addition to the site level testing requirements specified in Section C of this operating permit, the permittee shall also comply with the following:

- (a) The performance test shall consist of three (3) separate test runs and each run shall last at least in one (1) hour in duration.
- (b) All testing is to be done using EPA reference test methods acceptable to the Department and all testing is to be performed while this engine is operating at least 90% of maximum capacity (at least 5,420 brake horsepower).

005 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

(a) Every 2,500 hours of operation and no sooner than forty-five (45) days from the previous test, the permittee shall perform periodic monitoring for NO_x and CO emissions to verify the continued compliance of Source ID P103.

(b) A Department-approved test that has been performed within 45 days prior to the scheduled periodic monitoring may be used in lieu of the periodic monitoring for that time period.

(c) A portable gas analyzer may be used to satisfy the requirements of this condition utilizing three test runs of twenty (20) minutes for each test run.

(d) The portable gas analyzer shall be used and maintained according to the manufacturer's specifications and the procedures specified in ASTM D 6522 or equivalent as approved by the Department.

III. MONITORING REQUIREMENTS.**# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12.]

With respect to the operation of Source ID P103, the permittee shall continuously monitor the following parameters whenever the engine is in operation:

- (a) electric output of the generator,
- (b) natural gas/air mixture temperature,
- (c) natural gas/air mixture boost pressure,
- (d) hours of operation.

007 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12.]

With respect to the operation of the Concat IC SCR/catox system, ID C103, the permittee shall continuously monitor the following parameters whenever Source ID P103 is in operation:

- (a) urea injection rate,
- (b) catalyst inlet temperature,
- (c) pressure drop across the catalyst bed.

Additionally, whenever the catalyst pressure drop equals or exceeds 22 inches w.g. and/or the catalyst inlet temperature drops below 575°F for more than 10 seconds, an alarm will sound, and the urea injection system to the SCR will shut off.

**SECTION D. Source Level Requirements****IV. RECORDKEEPING REQUIREMENTS.****# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall maintain comprehensive, accurate records of the following information:

- (1) The emissions estimates and supporting calculations on a monthly basis used to verify compliance with the nitrogen oxide, carbon monoxide, volatile organic compound, particulate matter, sulfur oxide, and formaldehyde emission limitations for Source ID P103 in any 12 consecutive month period.
- (2) The pressure drop and the inlet gas temperature of the Concat IC SCR/catox system (C103) on a continuous basis via a data acquisition system.
- (3) The hours of operation of Source ID P103 on monthly basis.

(b) All records generated pursuant to this plan approval condition shall be kept for a minimum of five (5) years and made available to the Department upon request.

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?**

The permittee shall maintain a maintenance plan and records of maintenance conducted on Source ID P103. These records shall be maintained for at least five years and made available to the Department upon request.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.**# 010 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12.]

Source ID P103 shall be equipped with a non-resettable meter that will indicate the hours of operation.

011 [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?**

In accordance with 40 CFR 60.4243(b)(2)(ii), the permittee shall operate Source ID P103 in a manner consistent with good air pollution control practice for minimizing emissions.

VII. ADDITIONAL REQUIREMENTS.**# 012 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12.]

Source ID P103 is a 6,023 brake horsepower Jenbacher model J624 GS four stroke, lean burn natural gas-fired engine/generator set (serial #1123622) equipped with a LEANOX Lean Mixture Combustion Control system and a Johnson Matthey, LLC Concat IC SCR/catox system (ID C103). ID C103 is equipped with the following:

- (a) a selective catalytic (NO_x) reduction (SCR) system consisting of a urea injection system and catalyst,
- (b) an ammonia catalyst to minimize ammonia slip from the SCR system,
- (c) a catalyst for the oxidation of carbon monoxide and volatile organic compounds,
- (d) a monitor that accurately measures the catalyst inlet temperature,
- (e) a monitor that accurately measure the pressure drop across the catalyst bed.

**SECTION D. Source Level Requirements****# 013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4230]****Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines****Am I subject to this subpart?**

Source ID P103 is subject to the requirements of the Standards of Performance for Stationary Spark Ignition Internal Combustion Engines pursuant to 40 CFR Part 60 Subpart JJJJ, Section 60.4230 through 60.4247. The permittee shall comply with all applicable requirements of 40 CFR Part 60 Subpart JJJJ, Section 60.4230 through 60.4247.

014 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6585]**Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****Am I subject to this subpart?**

Source ID P103 is subject to the requirements of the National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines pursuant to 40 CFR Part 63 Subpart ZZZZ Section 63.6580 through 63.6675. In accordance with 40 CFR 63.6590(c)(1), the permittee shall comply with Subpart ZZZZ by meeting the requirements of 40 CFR Part 60 Subpart JJJJ, for spark ignition engines.

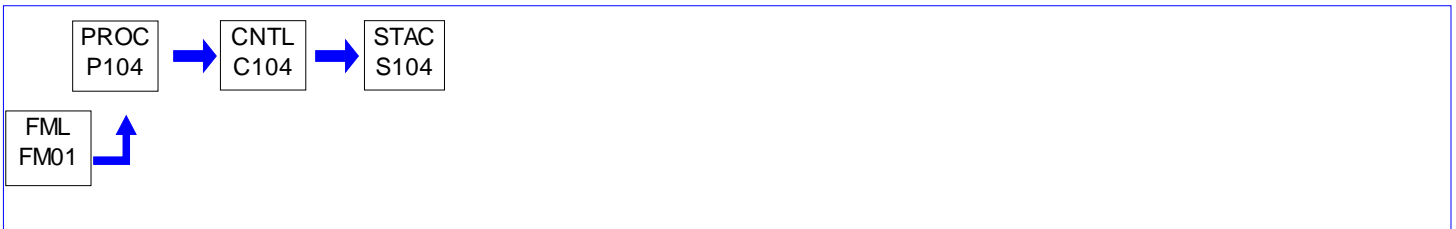
**SECTION D. Source Level Requirements**

Source ID: P104

Source Name: 6,023 BHP JENBACHER ENGINE #4

Source Capacity/Throughput: 32.245 MMBTU/HR

0.037 MMCF/HR Natural Gas

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12. Compliance with this streamlined condition assures compliance with the requirements of 25 Pa. Code Section 123.41]

The emission of visible air contaminants into the outdoor atmosphere from Source ID P104 shall not occur in such a manner that the opacity of the emission is either of the following:

- (1) Equal to or greater than 10% for a period or periods aggregating more than three minutes in any 1 hour,
- (2) Equal to or greater than 30% at any time.

002 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12. Compliance with this streamlined condition assures compliance with the requirements of 25 Pa. Code Sections 123.21 and 123.13, 40 CFR Part 60 Subpart JJJJ and 40 CFR Part 63 Subpart ZZZZ.]

The air contaminant emissions from Source ID P104 shall not exceed the following limitations:

- (a) nitrogen oxides (NO_x, expressed as NO₂) - 0.06 grams per brake horsepower-hour and 3.49 tons in any 12 consecutive month period,
- (b) carbon monoxide (CO) - 0.119 grams per brake horsepower-hour and 6.92 tons in any 12 consecutive month period,
- (c) total combined volatile organic compounds (VOCs) - 0.076 grams per brake horsepower-hour and 4.42 tons in any 12 consecutive month period,
- (d) sulfur oxides (SO_x, expressed as SO₂) – 0.000588 pounds per million Btu and 0.083 tons in any 12 consecutive month period,
- (e) particulate matter (PM/PM10/PM2.5) - 0.024 grams per brake horsepower-hour and 1.40 tons in any 12 consecutive month period,
- (f) formaldehyde - 0.025 grams per brake horsepower-hour and 1.49 tons in any 12 consecutive month period,
- (g) ammonia slip (from Concat IC SCR/catox System) – 10 ppmvd at 15% oxygen.

Fuel Restriction(s).**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12.]

Source ID P104 shall be fired only on natural gas.

**SECTION D. Source Level Requirements****II. TESTING REQUIREMENTS.****# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Compliance with this condition ensures compliance with the testing requirements specified in 40 CFR 60.4243(b)(2)(ii).]

Every 8,760 hours of engine operation or 3 years, whichever comes first, the permittee shall perform nitrogen oxide (NO_x, expressed as NO₂), carbon monoxide, volatile organic compound and formaldehyde source tests upon this engine to verify compliance with the emission limitations specified in this operating permit. In addition to the site level testing requirements specified in Section C of this operating permit, the permittee shall also comply with the following:

- (a) The performance test shall consist of three (3) separate test runs and each run shall last at least in one (1) hour in duration.
- (b) All testing is to be done using EPA reference test methods acceptable to the Department and all testing is to be performed while this engine is operating at least 90% of maximum capacity (at least 5,420 brake horsepower).

005 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

(a) Every 2,500 hours of operation and no sooner than forty-five (45) days from the previous test, the permittee shall perform periodic monitoring for NO_x and CO emissions to verify the continued compliance of Source ID P104.

(b) A Department-approved test that has been performed within 45 days prior to the scheduled periodic monitoring may be used in lieu of the periodic monitoring for that time period.

(c) A portable gas analyzer may be used to satisfy the requirements of this condition utilizing three test runs of twenty (20) minutes for each test run.

(d) The portable gas analyzer shall be used and maintained according to the manufacturer's specifications and the procedures specified in ASTM D 6522 or equivalent as approved by the Department.

III. MONITORING REQUIREMENTS.**# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12.]

With respect to the operation of Source ID P104, the permittee shall continuously monitor the following parameters whenever the engine is in operation:

- (a) electric output of the generator,
- (b) natural gas/air mixture temperature,
- (c) natural gas/air mixture boost pressure,
- (d) hours of operation.

007 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12.]

With respect to the operation of the Concat IC SCR/catox system, ID C104, the permittee shall continuously monitor the following parameters whenever Source ID P104 is in operation:

- (a) urea injection rate,
- (b) catalyst inlet temperature,
- (c) pressure drop across the catalyst bed.

Additionally, whenever the catalyst pressure drop equals or exceeds 22 inches w.g. and/or the catalyst inlet temperature drops below 575°F for more than 10 seconds, an alarm will sound, and the urea injection system to the SCR will shut off.

**SECTION D. Source Level Requirements****IV. RECORDKEEPING REQUIREMENTS.****# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall maintain comprehensive, accurate records of the following information:

- (1) The emissions estimates and supporting calculations on a monthly basis used to verify compliance with the nitrogen oxide, carbon monoxide, volatile organic compound, particulate matter, sulfur oxide, and formaldehyde emission limitations for Source ID P104 in any 12 consecutive month period.
- (2) The pressure drop and the inlet gas temperature of the Concat IC SCR/catox system (C104) on a continuous basis via a data acquisition system.
- (3) The hours of operation of Source ID P104 on monthly basis.

(b) All records generated pursuant to this plan approval condition shall be kept for a minimum of five (5) years and made available to the Department upon request.

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?**

The permittee shall maintain a maintenance plan and records of maintenance conducted on Source ID P104. These records shall be maintained for at least five years and made available to the Department upon request.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.**# 010 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12.]

Source ID P104 shall be equipped with a non-resettable meter that will indicate the hours of operation.

011 [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?**

In accordance with 40 CFR 60.4243(b)(2)(ii), the permittee shall operate Source ID P104 in a manner consistent with good air pollution control practice for minimizing emissions.

VII. ADDITIONAL REQUIREMENTS.**# 012 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12.]

Source ID P104 is a 6,023 brake horsepower Jenbacher model J624 GS four stroke, lean burn natural gas-fired engine/generator set (serial #1123653) equipped with a LEANOX Lean Mixture Combustion Control system and a Johnson Matthey, LLC Concat IC SCR/catox system (ID C104). ID C104 is equipped with the following:

- (a) a selective catalytic (NO_x) reduction (SCR) system consisting of a urea injection system and catalyst,
- (b) an ammonia catalyst to minimize ammonia slip from the SCR system,
- (c) a catalyst for the oxidation of carbon monoxide and volatile organic compounds,
- (d) a monitor that accurately measures the catalyst inlet temperature,
- (e) a monitor that accurately measure the pressure drop across the catalyst bed.

**SECTION D. Source Level Requirements****# 013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4230]****Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines****Am I subject to this subpart?**

Source ID P104 is subject to the requirements of the Standards of Performance for Stationary Spark Ignition Internal Combustion Engines pursuant to 40 CFR Part 60 Subpart JJJJ, Section 60.4230 through 60.4247. The permittee shall comply with all applicable requirements of 40 CFR Part 60 Subpart JJJJ, Section 60.4230 through 60.4247.

014 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6585]**Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****Am I subject to this subpart?**

Source ID P104 is subject to the requirements of the National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines pursuant to 40 CFR Part 63 Subpart ZZZZ Section 63.6580 through 63.6675. In accordance with 40 CFR 63.6590(c)(1), the permittee shall comply with Subpart ZZZZ by meeting the requirements of 40 CFR Part 60 Subpart JJJJ, for spark ignition engines.

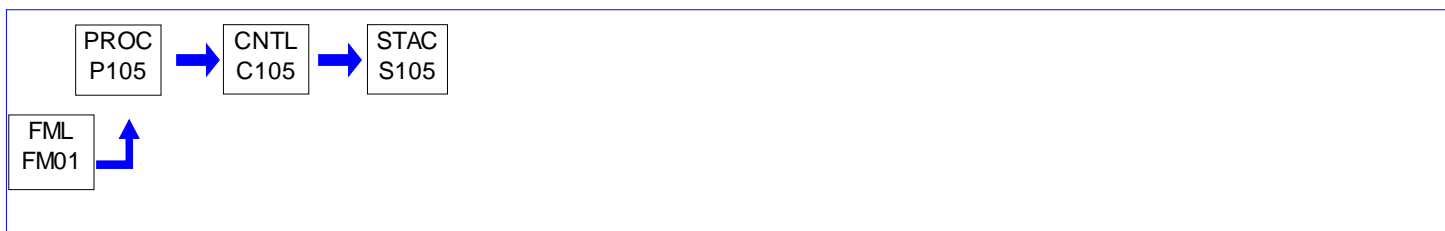
**SECTION D. Source Level Requirements**

Source ID: P105

Source Name: 6,023 BHP JENBACHER ENGINE #5

Source Capacity/Throughput: 32.245 MMBTU/HR

0.037 MMCF/HR Natural Gas

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12. Compliance with this streamlined condition assures compliance with the requirements of 25 Pa. Code Section 123.41]

The emission of visible air contaminants into the outdoor atmosphere from Source ID P105 shall not occur in such a manner that the opacity of the emission is either of the following:

- (1) Equal to or greater than 10% for a period or periods aggregating more than three minutes in any 1 hour,
- (2) Equal to or greater than 30% at any time.

002 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12. Compliance with this streamlined condition assures compliance with the requirements of 25 Pa. Code Sections 123.21 and 123.13, 40 CFR Part 60 Subpart JJJJ and 40 CFR Part 63 Subpart ZZZZ.]

The air contaminant emissions from Source ID P105 shall not exceed the following limitations:

- (a) nitrogen oxides (NO_x, expressed as NO₂) - 0.06 grams per brake horsepower-hour and 3.49 tons in any 12 consecutive month period,
- (b) carbon monoxide (CO) - 0.119 grams per brake horsepower-hour and 6.92 tons in any 12 consecutive month period,
- (c) total combined volatile organic compounds (VOCs) - 0.076 grams per brake horsepower-hour and 4.42 tons in any 12 consecutive month period,
- (d) sulfur oxides (SO_x, expressed as SO₂) – 0.000588 pounds per million Btu and 0.083 tons in any 12 consecutive month period,
- (e) particulate matter (PM/PM10/PM2.5) - 0.024 grams per brake horsepower-hour and 1.40 tons in any 12 consecutive month period,
- (f) formaldehyde - 0.025 grams per brake horsepower-hour and 1.49 tons in any 12 consecutive month period,
- (g) ammonia slip (from Concat IC SCR/catox System) – 10 ppmvd at 15% oxygen.

Fuel Restriction(s).**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12.]

Source ID P105 shall be fired only on natural gas.

**SECTION D. Source Level Requirements****II. TESTING REQUIREMENTS.****# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Compliance with this condition ensures compliance with the testing requirements specified in 40 CFR 60.4243(b)(2)(ii).]

Every 8,760 hours of engine operation or 3 years, whichever comes first, the permittee shall perform nitrogen oxide (NO_x, expressed as NO₂), carbon monoxide, volatile organic compound and formaldehyde source tests upon this engine to verify compliance with the emission limitations specified in this operating permit. In addition to the site level testing requirements specified in Section C of this operating permit, the permittee shall also comply with the following:

- (a) The performance test shall consist of three (3) separate test runs and each run shall last at least in one (1) hour in duration.
- (b) All testing is to be done using EPA reference test methods acceptable to the Department and all testing is to be performed while this engine is operating at least 90% of maximum capacity (at least 5,420 brake horsepower).

005 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

(a) Every 2,500 hours of operation and no sooner than forty-five (45) days from the previous test, the permittee shall perform periodic monitoring for NO_x and CO emissions to verify the continued compliance of Source ID P105.

(b) A Department-approved test that has been performed within 45 days prior to the scheduled periodic monitoring may be used in lieu of the periodic monitoring for that time period.

(c) A portable gas analyzer may be used to satisfy the requirements of this condition utilizing three test runs of twenty (20) minutes for each test run.

(d) The portable gas analyzer shall be used and maintained according to the manufacturer's specifications and the procedures specified in ASTM D 6522 or equivalent as approved by the Department.

III. MONITORING REQUIREMENTS.**# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12.]

With respect to the operation of Source ID P105, the permittee shall continuously monitor the following parameters whenever the engine is in operation:

- (a) electric output of the generator,
- (b) natural gas/air mixture temperature,
- (c) natural gas/air mixture boost pressure,
- (d) hours of operation.

007 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12.]

With respect to the operation of the Concat IC SCR/catox system, ID C105, the permittee shall continuously monitor the following parameters whenever Source ID P105 is in operation:

- (a) urea injection rate,
- (b) catalyst inlet temperature,
- (c) pressure drop across the catalyst bed.

Additionally, whenever the catalyst pressure drop equals or exceeds 22 inches w.g. and/or the catalyst inlet temperature drops below 575°F for more than 10 seconds, an alarm will sound, and the urea injection system to the SCR will shut off.

**SECTION D. Source Level Requirements****IV. RECORDKEEPING REQUIREMENTS.****# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall maintain comprehensive, accurate records of the following information:

- (1) The emissions estimates and supporting calculations on a monthly basis used to verify compliance with the nitrogen oxide, carbon monoxide, volatile organic compound, particulate matter, sulfur oxide, and formaldehyde emission limitations for Source ID P105 in any 12 consecutive month period.
- (2) The pressure drop and the inlet gas temperature of the Concat IC SCR/catox system (C105) on a continuous basis via a data acquisition system.
- (3) The hours of operation of Source ID P105 on monthly basis.

(b) All records generated pursuant to this plan approval condition shall be kept for a minimum of five (5) years and made available to the Department upon request.

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?**

The permittee shall maintain a maintenance plan and records of maintenance conducted on Source ID P105. These records shall be maintained for at least five years and made available to the Department upon request.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.**# 010 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12.]

Source ID P105 shall be equipped with a non-resettable meter that will indicate the hours of operation.

011 [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?**

In accordance with 40 CFR 60.4243(b)(2)(ii), the permittee shall operate Source ID P105 in a manner consistent with good air pollution control practice for minimizing emissions.

VII. ADDITIONAL REQUIREMENTS.**# 012 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this condition is derived from 25 Pa. Code Sections 127.1 and 127.12.]

Source ID P105 is a 6,023 brake horsepower Jenbacher model J624 GS four stroke, lean burn natural gas-fired engine/generator set (serial #1123650) equipped with a LEANOX Lean Mixture Combustion Control system and a Johnson Matthey, LLC Concat IC SCR/catox system (ID C105). ID C105 is equipped with the following:

- (a) a selective catalytic (NO_x) reduction (SCR) system consisting of a urea injection system and catalyst,
- (b) an ammonia catalyst to minimize ammonia slip from the SCR system,
- (c) a catalyst for the oxidation of carbon monoxide and volatile organic compounds,
- (d) a monitor that accurately measures the catalyst inlet temperature,
- (e) a monitor that accurately measure the pressure drop across the catalyst bed.

**SECTION D. Source Level Requirements****# 013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4230]****Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines****Am I subject to this subpart?**

Source ID P105 is subject to the requirements of the Standards of Performance for Stationary Spark Ignition Internal Combustion Engines pursuant to 40 CFR Part 60 Subpart JJJJ, Section 60.4230 through 60.4247. The permittee shall comply with all applicable requirements of 40 CFR Part 60 Subpart JJJJ, Section 60.4230 through 60.4247.

014 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6585]**Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****Am I subject to this subpart?**

Source ID P105 is subject to the requirements of the National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines pursuant to 40 CFR Part 63 Subpart ZZZZ Section 63.6580 through 63.6675. In accordance with 40 CFR 63.6590(c)(1), the permittee shall comply with Subpart ZZZZ by meeting the requirements of 40 CFR Part 60 Subpart JJJJ, for spark ignition engines.



SECTION E. Source Group Restrictions.

**SECTION F. Alternative Operation Requirements.**

No Alternative Operations exist for this State Only facility.

**SECTION G. Emission Restriction Summary.**

No emission restrictions listed in this section of the permit.

**SECTION H. Miscellaneous.**

The following air contaminant sources are considered to be of a minor significance to the Department and have been determined to be exempt from permitting requirements. However, this determination does not exempt the sources from compliance with all applicable air quality regulations in 25 Pa. Code Chapters 121 - 145:

- (1) one 0.385 MMBtu/hour, natural gas-fired, Tecvalco model DLH-385 natural gas fuel line heater;
- (2) four storage tanks:
 - (a) one 2,000 gallon lube oil;
 - (b) one 1,000 gallon used oil;
 - (c) one 5,236 gallon urea;
 - (d) one 1,000 gallon engine coolant;
- (3) one desiccant dehydration system;
- (4) various portable totes for the storage of engine coolant (ethylene glycol);
- (5) one 1.736 MMBtu/hr, natural gas-fired Cambridge model M120 air make-up unit;
- (6) natural gas fuel line purges.



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