



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
AIR QUALITY PROGRAM

**STATE ONLY SYNTHETIC MINOR OPERATING PERMIT**

Issue Date: May 20, 2026

Effective Date: May 20, 2026

Expiration Date: May 19, 2031

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: 18-00011**

Synthetic Minor

Federal Tax Id - Plant Code: 13-5603841-1

**Owner Information**

Name: CRODA INC  
Mailing Address: 8 CRODA WAY  
MILL HALL, PA 17751-8727

**Plant Information**

Plant: CRODA INC/DRAKETOWN ROAD  
Location: 18 Clinton County 18905 Bald Eagle Township  
SIC Code: 2844 Manufacturing - Toilet Preparations

**Responsible Official**

Name: JONATHAN BLACKWELL  
Title: SITE DIR  
Phone: (570) 748 - 0418 Ext.33162 Email: Jonathan.Blackwell@croda.com

**Permit Contact Person**

Name: DEREK RICE  
Title: SHE MANAGER  
Phone: (570) 748 - 7796 Ext.33174 Email: derek.rice@croda.com

[Signature] \_\_\_\_\_

MUHAMMAD Q. ZAMAN, ENVIRONMENTAL PROGRAM MANAGER, NORTHCENTRAL REGION



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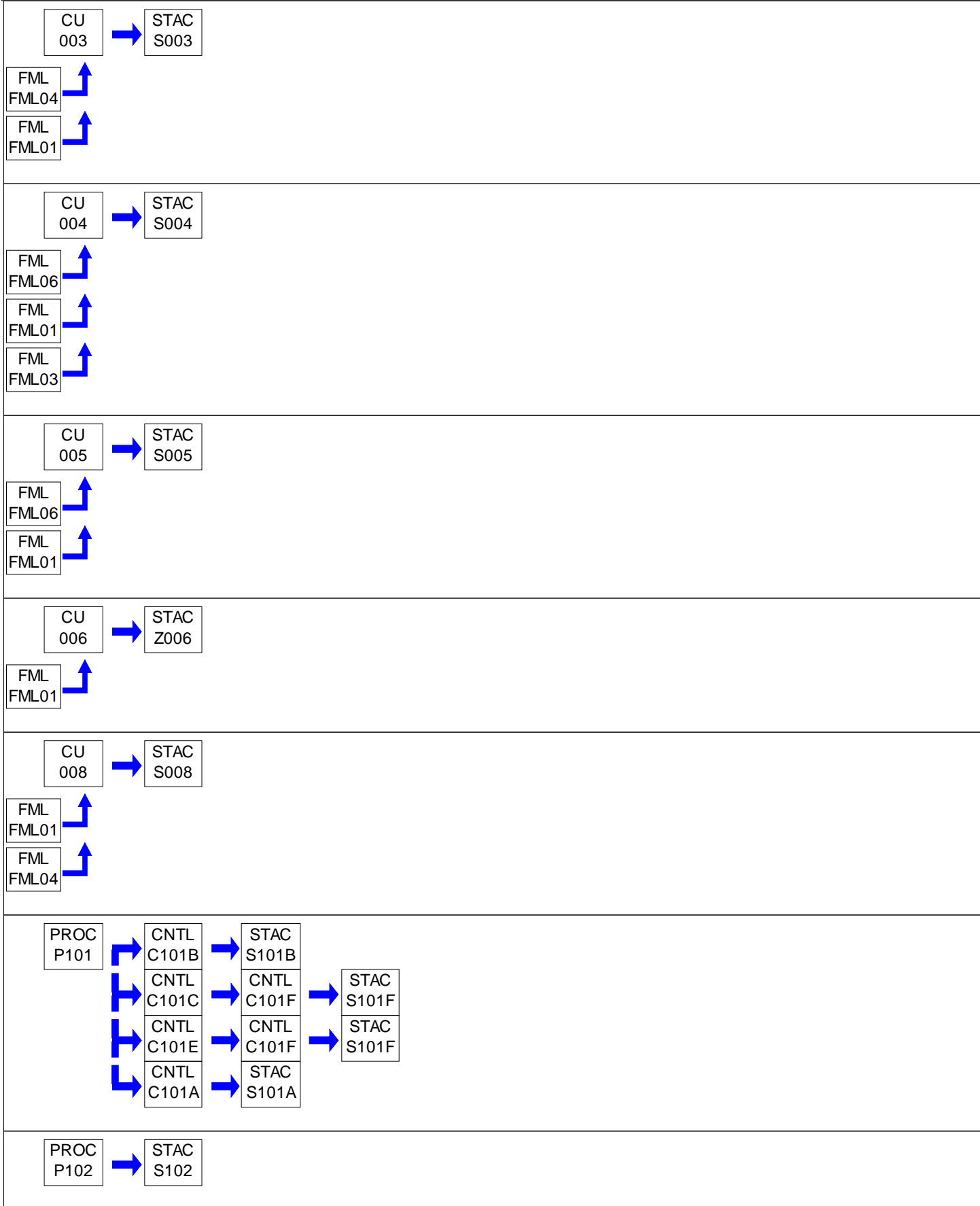
Source ID	Source Name	Capacity/Throughput		Fuel/Material
003	SUPERIOR BOILER (HEX-010200)	14.700	MMBTU/HR	
		14,700.000	CF/HR	Natural Gas
		105.000	Gal/HR	#2 Oil
004	HOT OIL HEATERS	10.700	MMBTU/HR	
		10,400.000	CF/HR	Natural Gas
		79.200	Gal/HR	#2 OIL
005	WASTEWATER TREATMENT BOILER	1.500	MMBTU/HR	
		1,500.000	CF/HR	Natural Gas
006	MISCELLANEOUS SPACE HEATERS	4.400	MMBTU/HR	
		4,400.000	CF/HR	Natural Gas
008	SUPERIOR BOILER (HEX-010300)	14.600	MMBTU/HR	
		14,645.000	CF/HR	Natural Gas
		104.000	Gal/HR	#2 Oil
P101	SUPER REFINED OIL 1 PROCESS			
P102	SYNTHESIS AREA-GENERAL PRODUCTS			
P103	SYNTHESIS AREA-METHYL CHLORIDE			
P104B	STORAGE TANKS > 2,000 GAL			
P107	ETHYLENE OXIDE STORAGE SYSTEM			
P108	DIMETHYL SULFATE STORAGE SYSTEM			
P109	EPOCHLOROHYDRIN STORAGE SYSTEM			
P112	PASTILLATOR ROOM			
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P114	METHYL CHLORIDE STORAGE SYSTEM			
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C101A	DUMP STATION FABRIC COLLECTOR			
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C101F	SUPER REFINED OIL RTO			
C103A	METHYL CHLORIDE REGENERATIVE THERMAL OXIDIZER			
C103B	WATER QUENCH			
C103C	METHYL CHLORIDE SCRUBBER			
C107	EO AND PO RAILCAR UNLOADING SCRUBBER			
C108	DIMETHYL SULFATE STORAGE TANK SCRUBBER			
C112	PASTILLATION SCRUBBER			

**SECTION A. Site Inventory List**

Source ID	Source Name	Capacity/Throughput	Fuel/Material
C120A	DUMP STATION FABRIC COLLECTOR		
C120B	FRESH RESIN FABRIC COLLECTOR		
C120C	SPENT RESIN FABRIC COLLECTOR		
C120E	OP 6/7 VENT CONDENSER SYSTEM		
C121	OXIDATION CATALYST		
FML01	NATURAL GAS LINE		
FML03	#2 FUEL OIL EAST		
FML04	#2 FUEL OIL WEST		
FML05	#2 FUEL OIL EMERGENCY RICE		
FML06	LIQUID PETROLEUM GAS		
S003	SUPERIOR BOILER - OLD STACK		
S004	HOT OIL HEATER STACKS		
S005	WASTEWATER TREATMENT BOILER STACK		
S008	SUPERIOR BOILER - NEW STACK		
S101A	DUMP STATION FABRIC STACK		
S101B	FRESH RESIN FABRIC STACK		
S101F	REGENERATIVE THERMAL OXIDIZER STACK		
S102	REACTOR STACKS		
S103	METHYL CHLORIDE SCRUBBER STACK		
S107	EO AND PO RAILCAR UNLOADING SCRUBBER STACK		
S108	DIMETHYL SULFATE STORAGE TANK SCRUBBER STACK		
S112A	PASTILLATION SCRUBBER STACK		
S112B	PASTILLATOR STACKS		
S119	EMERGENCY ENGINE STACKS		
S120A	DUMP STATION FABRIC EXHAUST		
S120B	FRESH RESIN FABRIC EXHAUST		
S120C	SPENT RESIN FABRIC EXHAUST		
S120E	VENT CONDENSER EXHAUST		
S121	CHP/HRSG STACK		
S122	RESEARCH AND DEVELOPMENT SOURCE STACKS		
Z006	SPACE HEATER FUG EMISS		
Z104	STORAGE TANK EMISSIONS		
Z107	ETHYLENE OXIDE EMISS.		
Z108	DIMETHYL SULFATE FUG EMISS.		
Z109	EPICHLOROHYDRIN FUG EMISS.		
Z113	PRODUCT LOADING EMISS.		
Z114	METHYL CHLORIDE FUG EMISS.		
Z118	PO STORAGE TANK & DISTRIBUTION SYSTEM EMISSIONS		
Z120	FUGITIVE VOCS FROM RESIN AND WASTEWATER		

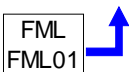
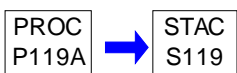
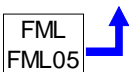
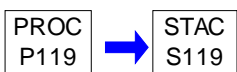
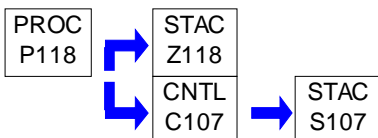
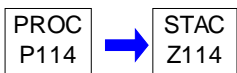
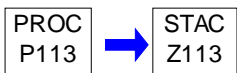
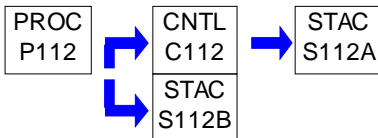
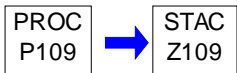
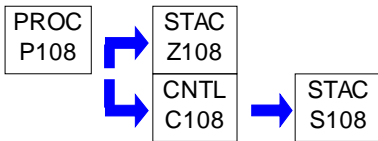
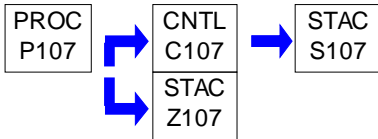
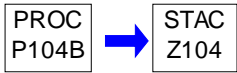


PERMIT MAPS



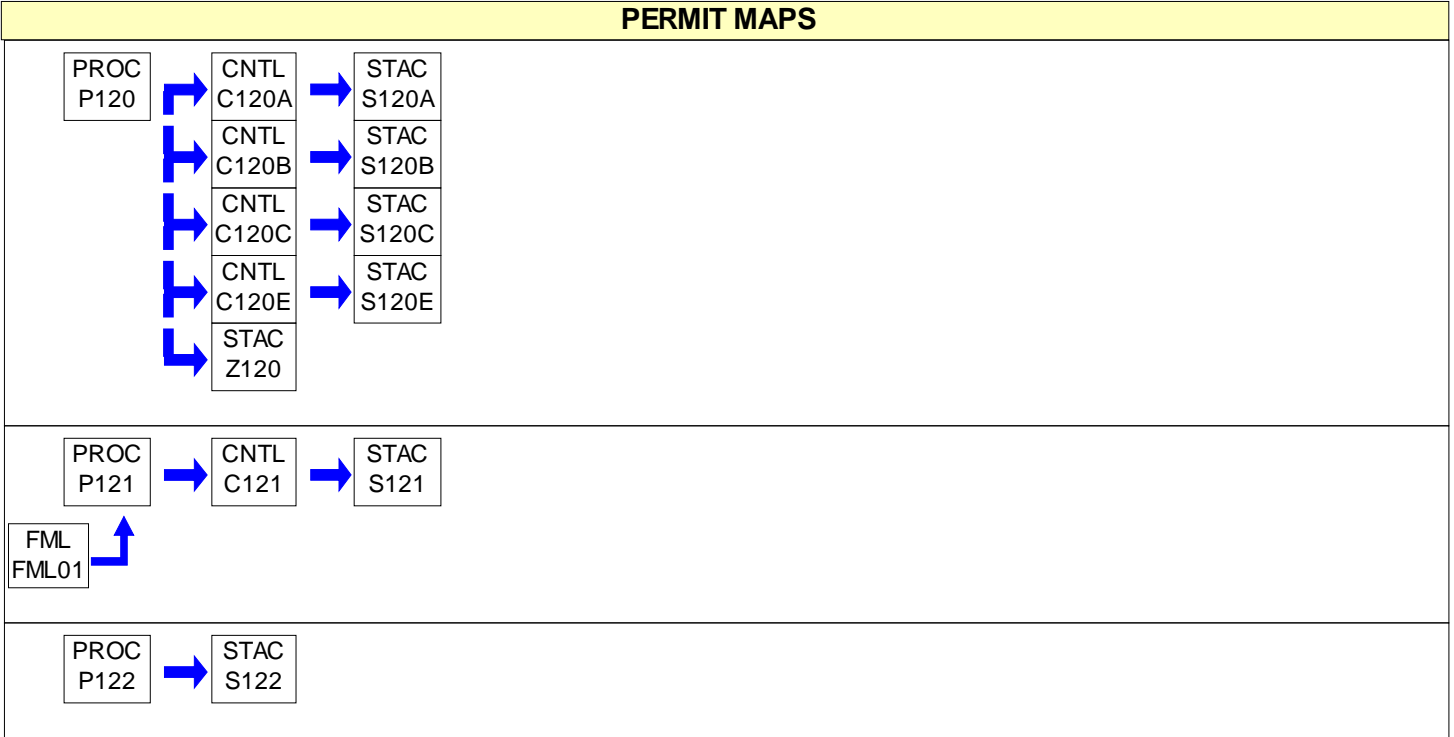


PERMIT MAPS





### 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 F.**

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

**SECTION B. General State Only Requirements**

- (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:

- (1) Enforcement action

**SECTION B. General State Only Requirements**

(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:

(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

**SECTION B. General State Only Requirements**

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<sub>x</sub> from a single source during the term of the permit and 5 tons of NO<sub>x</sub> 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 PM<sub>10</sub> from a single source during the term of the permit and 3.0 tons of PM<sub>10</sub> 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:

(1) Air conditioning or ventilation systems not designed to remove pollutants generated or released from other sources.

**SECTION B. General State Only Requirements**

(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)

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

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

**SECTION B. General State Only Requirements****#015 [25 Pa. Code § 127.11a]****Reactivation of Sources**

- (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 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.

**SECTION B. General State Only Requirements****#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.

**#023 [25 Pa. Code § 121.7]****Prohibition of Air Pollution**

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

**SECTION B. General State Only Requirements****#024 [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.

**#025 [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) 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**

No person may permit fugitive particulate matter to be emitted into the outdoor atmosphere from a source specified in condition #001 above if the emissions are visible at the point the emissions pass outside the person's property.

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

No person may permit the emission into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emission is either of the following:

- (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 emissions results from sources specified in 25 Pa Code Section 123.1(a)(1)-(9).

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

[Additional authority for this permit condition is derived from a request by the permittee]

- (a) The combined volatile organic compound emissions from all sources of the entire facility shall not equal or exceed 50 tons in any 12 consecutive month period.

**SECTION C. Site Level Requirements**

(b) The combined total hazardous air pollutant emissions from all sources of the entire facility shall not equal or exceed 25 tons in any 12 consecutive month period.

(c) The combined emissions of any single hazardous air pollutant from all sources of the entire facility shall not equal or exceed 10 tons in any 12 consecutive month period.

**Fuel Restriction(s).****# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this permit condition is derived from 25 Pa. Code Section 123.22(a)(2)]

The sulfur content of the #2 fuel oil used at this facility shall not exceed 15 ppm (0.0015%) sulfur by weight.

**II. TESTING REQUIREMENTS.****# 007 [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. One electronic copy shall be sent to the Northcentral Regional Office Air Quality Program Manager and one electronic copy shall be sent to 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 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 ensure all federal reporting requirements contained in the applicable subpart of 40 CFR are

**SECTION C. Site Level Requirements**

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.

**# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall perform tests or provide a fuel certification report of the percent sulfur by weight of each delivery of the #2 fuel oil delivered to the facility,

OR

The permittee shall keep records of fuel certification reports obtained yearly from the #2 fuel oil supplier stating that the sulfur percentage for each shipment of fuel delivered to the facility during the year shall not exceed 15 ppm (0.0015%) sulfur by weight.

All testing and fuel certification reports shall be in accordance with the provisions of 25 Pa. Code Chapter 139.

**# 009 [25 Pa. Code §139.1]****Sampling facilities.**

Upon the request of the Department, the person responsible for a source shall provide adequate sampling ports, safe sampling platforms and adequate utilities for the performance by the Department of tests on such 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.

**# 010 [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 materials or the rate of production of final product, boiler pressure, oven temperature and other conditions which may affect emissions from the process.
- (3) The location of sampling ports.
- (4) Effluent characteristics, including velocity, temperature, moisture content, gas density (percentage CO, CO<sub>2</sub>, O<sub>2</sub> and N<sub>2</sub>), 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.****# 011 [25 Pa. Code §123.43]****Measuring techniques**

Visible emissions may be measured using either of the following:

**SECTION C. Site Level Requirements**

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

**# 012 [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 visible emissions, visible fugitive emissions and malodors. Weekly inspections are necessary to determine:

- (1) the presence of visible emissions.
- (2) the presence of visible fugitive emissions.
- (3) the presence of malodors beyond the facility's property boundaries.
- (b) All detected visible emissions, visible fugitive emissions or malodors shall be reported to the manager of the facility.

**IV. RECORDKEEPING REQUIREMENTS.****# 013 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall keep records of tests or fuel certification reports of the percent sulfur by weight for each delivery of the #2 fuel oil delivered to the facility,

OR

the permittee shall keep records of fuel certification reports obtained yearly from the #2 fuel oil supplier containing the name of the fuel oil supplier and stating that the sulfur percentage for each shipment of #2 fuel oil delivered to the facility during the year shall not exceed 15 ppm (0.0015%) sulfur by weight.

(b) The above records shall be retained for a minimum of 5 years and shall be made available to the Department upon request.

**# 014 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall maintain a logbook for recording instances of visible emissions, visible fugitive emissions and malodorous air emissions, the name of the company representative monitoring these instances, and the date and time of each occurrence. The permittee shall also record the corrective action(s) taken to abate each recorded deviation or to prevent future occurrences.

These records shall be retained for a minimum of 5 years and shall be made available to the Department upon request.

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

The permittee shall keep records of the supporting calculations used to verify compliance with the annual volatile organic compound and hazardous air pollutant emission limitations for all sources of the entire facility.

These records shall be retained for a minimum of 5 years and shall be made available to the Department upon request.

**# 016 [25 Pa. Code §135.5]****Recordkeeping**

(a) The permittee shall maintain records including computerized records that may be necessary to comply with 25 Pa. Code Sections 135.3 and 135.21 (relating to reporting and emissions statements). These 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.

(b) The above records shall be retained for a minimum of 5 years and shall be made available to the Department upon request.

**SECTION C. Site Level Requirements**

request.

**V. REPORTING REQUIREMENTS.****# 017 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall submit semiannual reports of the supporting calculations verifying compliance with the annual volatile organic compound and hazardous air pollutant emission limitations for all sources of the entire facility.

The semiannual reports shall be submitted to the Department no later than September 1 (for January through June) and March 1 (for July through December of the previous year).

**# 018 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Upon request by the Department, the permittee shall submit all requested reports in accordance with the Department's suggested format.

**# 019 [25 Pa. Code §127.442]****Reporting requirements.**

Malfunctions, Emergencies or Incidents of Excess Emissions

(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 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.

**SECTION C. Site Level Requirements**

(g) Any emissions resulting from a malfunction or emergency are to be reported in the annual emissions inventory report.

**# 020 [25 Pa. Code §135.21]****Emission statements**

(a) The permittee shall provide the Department with a statement of each stationary source in a form as prescribed by the Department, showing the actual emissions of volatile organic compounds (VOCs) from the permitted facility for each reporting period, a description of the method used to calculate the emissions and the time period over which the calculation is based.

(b) The annual emission statements are due by March 1 for the preceding calendar year and shall contain a certification by a company officer or the plant manager that the information contained in the statement is accurate. The Emission Statement shall provide data consistent with requirements and guidance developed by the EPA.

(c) The Department may require more frequent submittals if the Department determines that one or more of the following applies:

(1) A more frequent submission is required by the EPA.

(2) Analysis of the data on a more frequent basis is necessary to implement the requirements of the Air Pollution Control Act.

**# 021 [25 Pa. Code §135.3]****Reporting**

(a) A person who owns or operates a source to which 25 Pa. Code Chapter 135 applies, and who has previously been advised by the Department to submit an annual Air Information Management Systems (AIMS) report, shall submit by March 1 of each year an annual AIMS report for the preceding calendar year. The report shall include information for all previously reported sources, new sources which were first operated during the preceding calendar year and sources modified during the same period which were not previously reported.

(b) A person who receives initial notification by the Department that an annual AIMS report is necessary shall submit an initial annual AIMS report within 60 days after receiving the notification or by March 1 of the year following the year for which the report is required, whichever is later.

(c) A source owner or operator may request an extension of time from the Department for the filing of a source report, and the Department may grant the extension for reasonable cause.

**VI. WORK PRACTICE REQUIREMENTS.****# 022 [25 Pa. Code §123.1]****Prohibition of certain fugitive emissions**

The permittee shall take all reasonable actions for any source specified in 25 Pa Code Section 123.1(a)(1-9) to prevent particulate matter from becoming airborne. These actions shall include, but not 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.

**SECTION C. Site Level Requirements****VII. ADDITIONAL REQUIREMENTS.****# 023 [25 Pa. Code §123.31]****Limitations**

No person may 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.

**# 024 [25 Pa. Code §129.14]****Open burning operations**

No person may permit the open burning of material at this facility unless in accordance with 25 Pa. Code Section 129.14.

**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: 003

Source Name: SUPERIOR BOILER (HEX-010200)

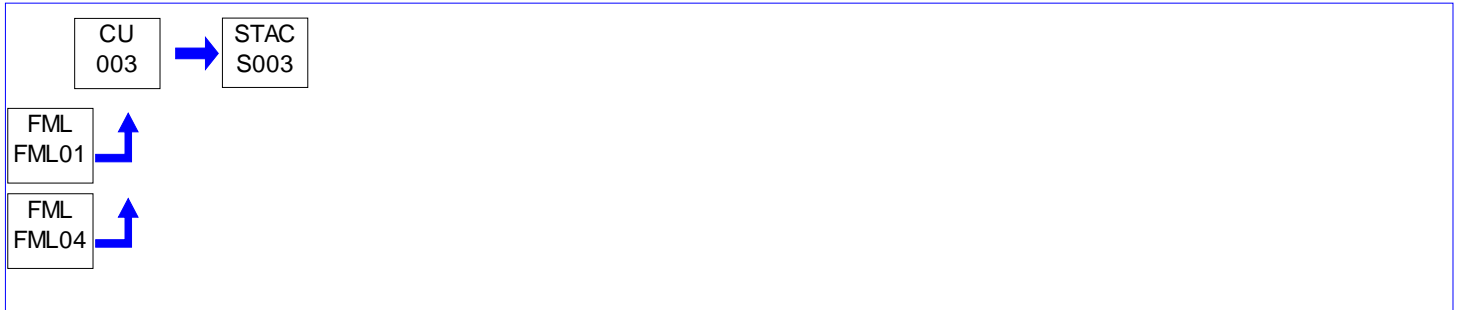
Source Capacity/Throughput: 14.700 MMBTU/HR

14,700.000 CF/HR

Natural Gas

105.000 Gal/HR

#2 Oil

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

No person may permit the emission into the outdoor atmosphere of particulate matter from Source ID 003 in excess of 0.4 pounds per million Btu of heat input in accordance with 25 Pa. Code Section 123.11(a)(1).

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

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provision in 40 CFR 52.2020(c)(1)]

No person may permit the emission into the outdoor atmosphere of sulfur oxides (SO<sub>x</sub>), expressed as SO<sub>2</sub>, from Source ID 003 in excess of the rate of 4 pounds per million Btu of heat input over any 1-hour period in accordance with 25 Pa. Code Section 123.22(a)(1).

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

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

The permittee shall only fire gas (natural or LP) or No. 2 fuel oil in Source ID 003 to which there has been no reclaimed or waste oil or other waste materials added.

**# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this permit condition is derived from a request by the permittee]

The permittee shall not combust #2 fuel oil, in Source ID 003, in excess of 450,000 gallons in any 12 consecutive month period.

**# 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.42c]****Subpart Dc - Standards of Performance for Small Industrial- Commercial-Institutional Steam Generating Units Standard for sulfur dioxide.**

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 123.22(a)(2), 127.1 and 127.12]

(a) In accordance with 25 Pa. Code Section 123.22(a)(2) and 40 CFR Section 60.42c(d), the sulfur content of all oil fired in Source ID 003 shall not exceed 15 ppm (0.0015%) by weight.

(b) The permittee shall comply, for Source ID 003, with all the applicable sulfur dioxide standards specified in 40 CFR

**SECTION D. Source Level Requirements**

Section 60.42c.

**II. TESTING REQUIREMENTS.**

**# 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.44c]  
Subpart Dc - Standards of Performance for Small Industrial- Commercial-Institutional Steam Generating Units  
Compliance and performance test methods and procedures for sulfur dioxide.**

The permittee shall comply, for Source ID 003, with all the applicable compliance and performance testing requirements for sulfur dioxide as specified in 40 CFR Section 60.44c.

**III. MONITORING REQUIREMENTS.**

**# 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.46c]  
Subpart Dc - Standards of Performance for Small Industrial- Commercial-Institutional Steam Generating Units  
Emission monitoring for sulfur dioxide**

The permittee shall comply, for Source ID 003, with all the applicable monitoring requirements specified in 40 CFR Section 60.46c.

**IV. RECORDKEEPING REQUIREMENTS.**

**# 008 [25 Pa. Code §127.441]  
Operating permit terms and conditions.**

The permittee shall keep records of the supporting data used to verify compliance with the annual #2 fuel oil limitation, for Source ID 003.

These records shall be retained for a minimum of 5 years and shall be made available to the Department upon request.

**# 009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.48c]  
Subpart Dc - Standards of Performance for Small Industrial- Commercial-Institutional Steam Generating Units  
Reporting and recordkeeping requirements.**

[Additional authority for this streamlined permit condition is also derived from 25 Pa. Code § 127.441]

(a) The permittee shall maintain records of fuel certifications in accordance with 40 CFR 60.48c(f)(1).

(b) The permittee shall create and maintain records of the amount of each fuel combusted in Source ID 003 during each calendar month in accordance with 40 CFR 60.48c(g)(2).

(c) These records shall be kept for a minimum of 5 years and shall be made available to the Department upon request.

**V. REPORTING REQUIREMENTS.**

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

The permittee shall submit annual reports of the supporting data verifying compliance with the annual #2 fuel oil limitation, for Source ID 003.

The annual reports shall be submitted to the Department no later than March 1 for the previous year.

**# 011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.48c]  
Subpart Dc - Standards of Performance for Small Industrial- Commercial-Institutional Steam Generating Units  
Reporting and recordkeeping requirements.**

The permittee shall comply, for Source ID 003, with all the applicable requirements of 40 CFR Sections 60.40c through 60.48c. The submission of all requests, reports, application submittals, and other communications required by the

**SECTION D. Source Level Requirements**

Standards of Performance for New Stationary Sources (Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR Sections 60.40c-60.48c) must be made to both the U.S. Environmental Protection Agency and the Pennsylvania Department of Environmental Protection. The copies may be sent to:

Associate Director  
Air Protection Division (3AP20)  
U. S. EPA, Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029

and

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

**# 012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.48c]  
Subpart Dc - Standards of Performance for Small Industrial- Commercial-Institutional Steam Generating Units  
Reporting and recordkeeping requirements.**

The permittee shall comply, for Source ID 003, with all the applicable reporting requirements specified in 40 CFR Section 60.48c.

**VI. WORK PRACTICE REQUIREMENTS.**

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

**VII. ADDITIONAL REQUIREMENTS.**

**# 013 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

Source ID 003 is a Superior Boiler Works, Inc. Model 4-5-1758-s200-IC-GA2 #2 fuel oil and natural gas fired steam boiler with a heat input capacity of 14.7 MMBtu/hr.

**# 014 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

Source ID 003 is subject to 40 CFR Part 63 Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources. The permittee shall comply with all applicable requirements of this Subpart.

Pursuant to 40 CFR § 63.11195(e), a dual-fuel boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or periodic testing on liquid fuel is exempt from the requirements of Subpart JJJJJJ.

**# 015 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.40c]**

**Subpart Dc - Standards of Performance for Small Industrial- Commercial-Institutional Steam Generating Units  
Applicability and delegation of authority.**

Source ID 003 is subject to 40 CFR Part 60, Subpart Dc. The permittee shall comply with all the applicable requirements specified in 40 CFR Sections 60.40c through 60.48c.

**SECTION D. Source Level Requirements**

Source ID: 004

Source Name: HOT OIL HEATERS

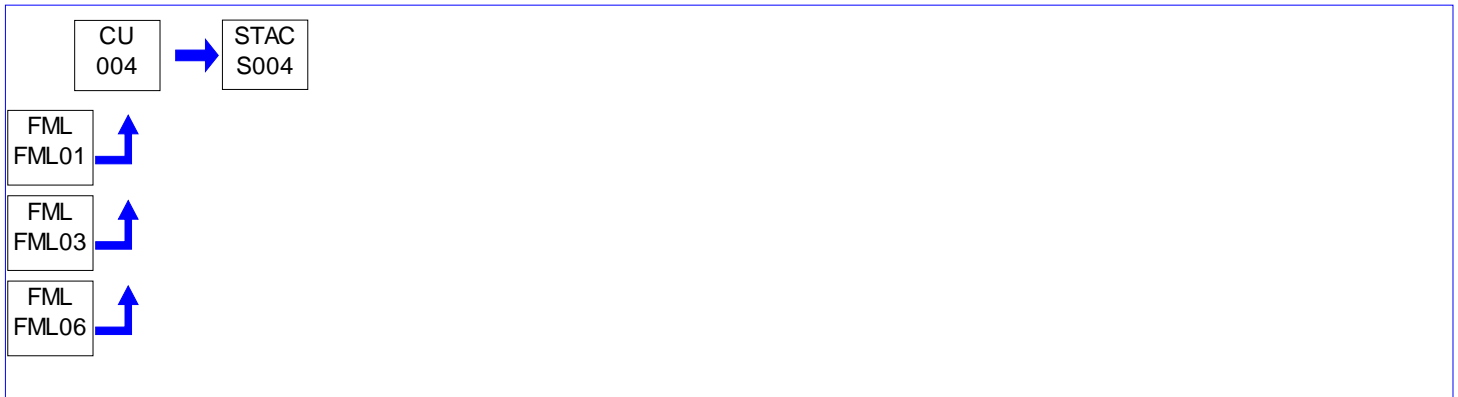
Source Capacity/Throughput: 10.700 MMBTU/HR

10,400.000 CF/HR

Natural Gas

79.200 Gal/HR

#2 OIL

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

No person may permit the emission into the outdoor atmosphere of particulate matter from the 9.997 MMBtu/hr heater of Source ID 004 in excess of 0.4 pounds per million Btu of heat input in accordance with 25 Pa. Code Section 123.11(a)(1).

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

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provision in 40 CFR 52.2020(c)(1)]

No person may permit the emission into the outdoor atmosphere of sulfur oxides (SO<sub>x</sub>), expressed as SO<sub>2</sub>, from each heater of Source ID 004 in excess of the rate of 4 pounds per million Btu of heat input over any 1-hour period in accordance with 25 Pa. Code Section 123.22(a)(1).

**Fuel Restriction(s).****# 003 [25 Pa. Code §123.22]****Combustion units**

The sulfur content of the #2 fuel oil fired in Source ID 004 shall not exceed 15 ppm (0.0015%) by weight.

**# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall only fire gas (natural or LP) or No. 2 fuel oil, in Source ID 004, to which there has been no reclaimed or waste oil or other waste materials added.

**II. TESTING REQUIREMENTS.**

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

**III. MONITORING REQUIREMENTS.**

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

**SECTION D. Source Level Requirements****IV. RECORDKEEPING REQUIREMENTS.**

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

**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.**

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

**VII. ADDITIONAL REQUIREMENTS.**

**# 005 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

Source ID 004 includes two (2) natural gas, liquid petroleum gas and #2 fuel oil fired Fulton hot oil heaters. The maximum rated heat input capacities for the hot oil heaters are 9.997 MMBtu/hr and 0.693 MMBtu/hr.

**SECTION D. Source Level Requirements**

Source ID: 005

Source Name: WASTEWATER TREATMENT BOILER

Source Capacity/Throughput: 1.500 MMBTU/HR

1,500.000 CF/HR

Natural Gas

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

# 001 [25 Pa. Code §123.22]

**Combustion units**

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provision in 40 CFR 52.2020(c)(1)]

No person may permit the emission into the outdoor atmosphere of sulfur oxides (SO<sub>x</sub>), expressed as SO<sub>2</sub>, from Source ID 005 in excess of the rate of 4 pounds per million Btu of heat input over any 1-hour period in accordance with 25 Pa. Code Section 123.22(a)(1).

**Fuel Restriction(s).**

# 002 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

The permittee shall only fire gas (natural or LP) in Source ID 005.

**II. TESTING REQUIREMENTS.**

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

**III. MONITORING REQUIREMENTS.**

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

**IV. RECORDKEEPING REQUIREMENTS.**

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

**V. REPORTING REQUIREMENTS.**

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

**SECTION D. Source Level Requirements****VI. WORK PRACTICE REQUIREMENTS.**

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

**VII. ADDITIONAL REQUIREMENTS.**

**# 003 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

Source ID 005 includes a natural gas fired Fulton steam boiler with a calculated maximum heat input capacity of 1.5 MMBtu/hr.

**SECTION D. Source Level Requirements**

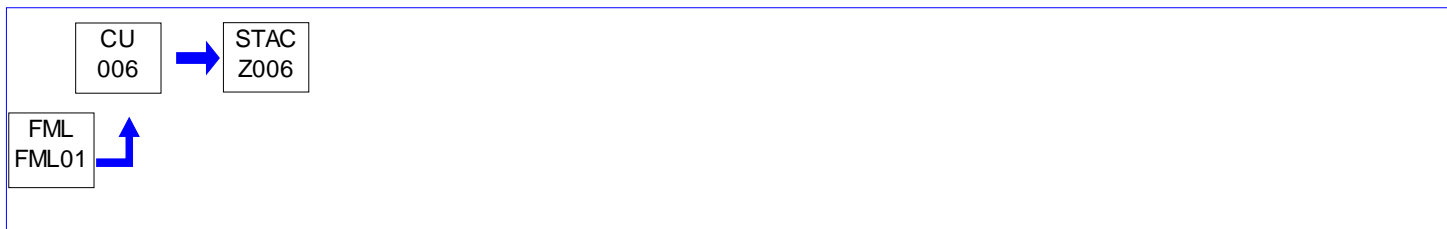
Source ID: 006

Source Name: MISCELLANEOUS SPACE HEATERS

Source Capacity/Throughput: 4.400 MMBTU/HR

4,400.000 CF/HR

Natural Gas

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

# 001 [25 Pa. Code §123.22]

**Combustion units**

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provisions in 40 CFR 52.2020(c)(1)]

No person may permit the emission into the outdoor atmosphere of sulfur oxides (SO<sub>x</sub>), expressed as SO<sub>2</sub>, from each heater of Source ID 006 in excess of the rate of 4 pounds per million Btu of heat input over any 1-hour period in accordance with 25 Pa. Code Section 123.22(a)(1).

**Fuel Restriction(s).**

# 002 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

The permittee shall only fire natural gas in Source ID 006.

**II. TESTING REQUIREMENTS.**

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

**III. MONITORING REQUIREMENTS.**

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

**IV. RECORDKEEPING REQUIREMENTS.**

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

**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.**

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

**SECTION D. Source Level Requirements****VII. ADDITIONAL REQUIREMENTS.****# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Source ID 006 consists of miscellaneous natural gas fired space heaters. The combined heat input capacity is 4.40 MMBtu/hr.

**SECTION D. Source Level Requirements**

Source ID: 008

Source Name: SUPERIOR BOILER (HEX-010300)

Source Capacity/Throughput: 14.600 MMBTU/HR

14,645.000 CF/HR

Natural Gas

104.000 Gal/HR

#2 Oil

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

No person may permit the emission into the outdoor atmosphere of particulate matter from Source ID 008 in excess of 0.40 pounds per million Btu of heat input.

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

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provision in 40 CFR 52.2020(c)]

No person may permit the emission of sulfur oxides (SO<sub>x</sub>), expressed as SO<sub>2</sub> into the outdoor atmosphere from Source ID 008 in excess of the rate of 4 pounds per million Btu of heat input over any 1-hour period.

**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

Emissions from Source ID 008 shall be equal to or less than:

- 30 ppm<sub>dv</sub> NO<sub>x</sub> at 3% O<sub>2</sub> when firing gas;
- 90 ppm<sub>dv</sub> NO<sub>x</sub> at 3% O<sub>2</sub> when firing No. 2 fuel oil; and
- 300 ppm<sub>dv</sub> CO at 3% O<sub>2</sub>

**Fuel Restriction(s).****# 004 [25 Pa. Code §123.22]****Combustion units**

[Compliance with the requirements specified in this streamlined permit condition assures compliance with the provision in 40 CFR 60.42c(d)]

(a) The permittee shall only use natural gas or virgin #2 fuel oil as fuel for Source ID 008, to which there has been no reclaimed / reprocessed oil or waste oil or other waste material added to the #2 fuel oil.

(b) The sulfur content of the #2 fuel oil fired in Source ID 008 shall not, at any time, exceed 15 ppm (0.0015%) by weight.

**SECTION D. Source Level Requirements****II. TESTING REQUIREMENTS.**

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

**III. MONITORING REQUIREMENTS.**

**# 005 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

The permittee shall install and maintain the necessary meter(s) to determine and to record the amount of fuel used in Source ID 008.

**IV. RECORDKEEPING REQUIREMENTS.**

**# 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.48c]**

**Subpart Dc - Standards of Performance for Small Industrial- Commercial-Institutional Steam Generating Units Reporting and recordkeeping requirements.**

[Additional authority for this streamlined permit condition is also derived from 25 Pa. Code § 127.441]

- (a) The permittee shall maintain records of fuel certifications in accordance with 40 CFR 60.48c(f)(1).
- (b) The permittee shall create and maintain records of the amount of each fuel combusted in Source ID 008 during each calendar month in accordance with 40 CFR 60.48c(g)(2).
- (c) These records shall be kept for a minimum of 5 years and shall be made available to the Department upon request.

**V. REPORTING REQUIREMENTS.**

**# 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.48c]**

**Subpart Dc - Standards of Performance for Small Industrial- Commercial-Institutional Steam Generating Units Reporting and recordkeeping requirements.**

The permittee shall comply, for Source ID 008, with all the applicable reporting requirements specified in 40 CFR Section 60.48c.

**# 008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.48c]**

**Subpart Dc - Standards of Performance for Small Industrial- Commercial-Institutional Steam Generating Units Reporting and recordkeeping requirements.**

The permittee shall comply, for Source ID 008, with all the applicable requirements of 40 CFR Sections 60.40c through 60.48c. The submission of all requests, reports, application submittals, and other communications required by the Standards of Performance for New Stationary Sources (Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR Sections 60.40c-60.48c) must be made to both the U.S. Environmental Protection Agency and the Pennsylvania Department of Environmental Protection. The copies may be sent to:

Associate Director  
Air Protection Division (3AP20)  
U. S. EPA, Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029

and

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

**SECTION D. Source Level Requirements****VI. WORK PRACTICE REQUIREMENTS.**

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

**VII. ADDITIONAL REQUIREMENTS.****# 009 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Source ID 008 is subject to 40 CFR Part 60, Subpart Dc - New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units. The permittee shall comply with all applicable requirements of this Subpart.

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

Source ID 008 is subject to 40 CFR Part 63 Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources. The permittee shall comply with all applicable requirements of this Subpart.

Pursuant to 40 CFR § 63.11195(e), a dual-fuel boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or periodic testing on liquid fuel is exempt from the requirements of Subpart JJJJJJ.

**# 011 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

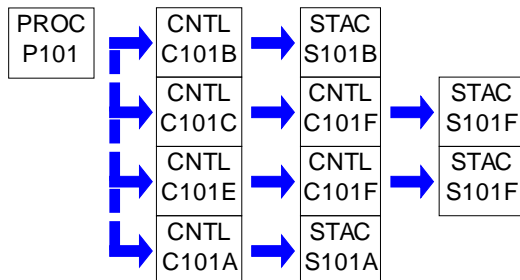
Source ID 008 is Superior Boiler Works, Inc. model Apache #8-5-1750-150-1C-GA2 boiler, rated at 14.6 million Btu per hour. The boiler is equipped with an economizer as approved via eRFD #5233 on August 10, 2015.

**SECTION D. Source Level Requirements**

Source ID: P101

Source Name: SUPER REFINED OIL 1 PROCESS

Source Capacity/Throughput:

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.13]****Processes**

The permittee shall not emit particulate matter from the exhaust of the Young Industries, Inc. FBD 30-6 fabric collector (ID C101A), nor from the exhaust of the NESTEC Regenerative Thermal Oxidizer (ID C101F), associated with Source ID P101 in excess of 0.04 grain per dry standard cubic foot, when the effluent gas volume is less than 150,000 dry standard cubic feet per minute.

**# 002 [25 Pa. Code §123.21]****General**

No person may permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of the sulfur oxides, expressed as SO<sub>2</sub>, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

Under no circumstances shall the amount of volatile organic compounds contained in the spent resin generated from any single batch of Source ID P101 be in excess of 20 pounds.

**# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

(a) The permittee shall not emit volatile organic compounds (VOCs) from the processing of batches utilizing a non-polar solvent in Source ID P101 in excess of 16.1 tons in any 12 consecutive month period.

(b) The permittee shall not emit volatile organic compounds (VOCs) from the processing of batches utilizing a polar solvent in Source ID P101 in excess of 9.7 tons in any 12 consecutive month period.

(c) The permittee shall not emit hazardous air pollutants (HAPs) from Source ID P101 in excess of 8.9 tons in any 12 consecutive month period.

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

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

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provision in 25 Pa. Code Section 123.13]

(a) The permittee shall not emit particulate matter from the exhaust of the Young Industries, Inc. VC24-12-34 fabric collector

**SECTION D. Source Level Requirements**

(ID C101B) associated with Source ID P101 in excess of 0.01 grains per dry standard cubic foot.

(b) The permittee shall not emit particulate matter from the exhaust of the Young Industries, Inc. VC48-16-40 fabric collector (ID C101C) associated with Source ID P101 in excess of 0.01 grains per dry standard cubic foot.

**Fuel Restriction(s).**

**# 006 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

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

The RTO (ID C101F) burner rated at a maximum heat input capacity of 0.5 MMBtu/hr shall only be fired on natural gas.

**Control Device Efficiency Restriction(s).**

**# 007 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

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

The RTO (ID C101F) shall reduce hazardous air pollutant or volatile organic compounds emissions from Source ID P101 by either at least 99% or to a concentration of less than 10 ppm (as propane).

**II. TESTING REQUIREMENTS.**

**# 008 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

(a) On a semiannual basis, the permittee shall accurately determine the amount (in pounds) of volatile organic compounds and hazardous air pollutants contained in the spent resin generated from a batch of Super Refined Oils processed in Source ID P101 using sampling and analytical procedures which have been approved by the Department.

(b) The permittee shall sample and analyze the spent resin from any batch of polar solvent product manufactured during the first calendar quarter of each semiannual period, starting January 1st and July 1st of each year, unless no batch is manufactured in that first quarter, in which case the permittee shall sample and analyze resin from the first batch manufactured in the second quarter of that semiannual period.

(c) The permittee shall sample and analyze the spent resin from any batch of non-polar solvent product manufactured during the first calendar quarter of each semiannual period, starting January 1st and July 1st of each year, unless no batch is manufactured in that first quarter, in which case the permittee shall sample and analyze resin from the first batch manufactured in the second quarter of that semiannual period.

(d) The volatile organic compounds and hazardous air pollutants content of spent resin from batches which are not sampled and analyzed shall be reported as 9.69 pounds per batch for non-polar solvent, and 3.04 pounds per batch for polar solvents. The permittee shall perform an analysis of sampling data every five years for purposes of re-evaluating and verifying the validity of these presumptive values.

**# 009 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

(a) No later than December 31, 2021, and every five years following the date of the previous test thereafter, the permittee shall submit a source testing protocol for EPA reference method testing programs for volatile organic compounds (VOCs) and Hazardous Air Pollutants (HAPs) on the Regenerative Thermal Oxidizer (ID C101F) inlet and outlet while the oxidizer is being used to control emissions from Source ID P101 to determine the concentration of VOC and HAPs in the oxidizer inlet and outlet as well as the destruction efficiency of the oxidizer in order to demonstrate compliance with the emissions limitations and control device efficiency requirements.

(b) The permittee shall respond to any request for additional information from BAQ Source Testing within 30 days, or as allowed by the Department.

**SECTION D. Source Level Requirements**

(c) Within 90 days of receipt of an approved testing protocol from BAQ Source Testing, the permittee shall conduct the approved EPA reference method testing programs on the Regenerative Thermal Oxidizer inlet and outlet while Source ID P101 is operating at maximum routine operating conditions, or under other conditions as approved by the Department.

**III. MONITORING REQUIREMENTS.****# 010 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

- (a) The RTO (ID C101F) shall be equipped with a system to continuously monitor and record the oxidizer chamber temperature.
- (b) The RTO (ID C101F) shall be equipped with a flameout detection device interlocked to terminate the gas flow to the thermal oxidizer when a flameout is detected.

**IV. RECORDKEEPING REQUIREMENTS.****# 011 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall keep records of the following for Source ID P101:

- (a) The total number of batches completed on a monthly basis
- (b) The total amount of solvent (in pounds) added to each individual campaign and the composition of the solvent blend
- (c) The total amount of solvent (in pounds) recovered from each individual campaign and the composition of the solvent blend
- (d) For batches in which the spent resin is required to be sampled to determine VOC content, the date and time the resin is removed from the oil processing column and the date and time a sample of that resin is taken for analysis
- (e) The results of all solvent composition determinations performed on the spent resin
- (f) The dates and times that the Super Refined Oils process (Source ID P101) is operating.
- (g) The supporting calculations used to verify compliance with the annual volatile organic compound emission limitations and the annual hazardous air pollutant emission limitation.
- (h) The supporting calculations used to verify compliance with the volatile organic compound emission limitation for the spent resin of each batch.

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.**

The permittee shall keep the following records for the regenerative thermal oxidizer (ID C101F) associated with Source ID P101:

- (a) The continuous oxidizer chamber temperature.
- (b) The calculations or stack test reports that verify a volatile organic compound and hazardous air pollutant destruction efficiency of at least 99% or an outlet concentration of less than 10 ppm (as propane) for the thermal oxidizer.

These records shall be retained for a minimum of 5 years and shall be made available to the Department upon request.

**SECTION D. Source Level Requirements****# 013 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall keep records of the supporting calculations used to verify compliance with the particulate matter emission limitations, for IDs C101A, C101B and C101C associated with Source ID P101.

These records shall be retained for a minimum of 5 years and shall be made available to the Department upon request.

**# 014 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The pre-cooler condensers incorporated in the vent condenser systems (ID C101E) of Source ID P101 shall be equipped with instrumentation to accurately monitor and record the coolant inlet temperature on a continuous basis. All data recorded by this instrumentation shall be accurately identified as to date and time of occurrence.

These records shall be retained for a minimum of 5 years and shall be made available to the Department upon request.

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

The permittee shall submit the following records from Source ID P101 to the Department on a semiannual basis:

- (a) The total number of batches completed on a monthly basis
- (b) The total amount of solvent (in pounds) added to each individual campaign and the composition of the solvent blend
- (c) The total amount of solvent (in pounds) recovered from each individual campaign and the composition of the solvent blend
- (d) For batches in which the spent resin is required to be sampled to determine VOC content, the date and time the resin is removed from the oil processing column and the date and time a sample of that resin is taken for analysis
- (e) The results of all solvent composition determinations performed on the spent resin
- (f) The dates and times that the Super Refined Oils process (Source ID P101) is operating.
- (g) The supporting calculations verifying compliance with the annual volatile organic compound emission limitations and the annual hazardous air pollutant emission limitation.
- (h) The supporting calculations verifying compliance with the volatile organic compound emission limitation for the spent resin of each batch.

The semiannual reports shall be submitted to the Department no later than March 1 and September 1 for the previous semiannual period.

**VI. WORK PRACTICE REQUIREMENTS.****# 016 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall not operate Source ID P101 unless the RTO (ID C101F) is operational and maintaining a chamber temperature of at least 1520° F.

**# 017 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

The permittee shall operate Source ID P101 such that the residual volatile organic compound content of the spent resin

**SECTION D. Source Level Requirements**

removed from the oil processing columns shall be minimized.

**# 018 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

The temperature of the coolant used in the pre-cooler condensers incorporated in the respective vent condenser systems (ID C101E) of Source ID P101 shall be no greater than 40° F (as measured at the coolant inlet to the condenser) at any time any of the SRO process equipment which is ducted to the respective vent condenser system(s) is in use.

**# 019 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall keep on hand a sufficient quantity of spare fabric collector bags for the fabric collectors (IDs C101A, C101B and C101C) associated with Source ID P101 in order to be able to immediately replace any bags requiring replacement due to deterioration resulting from routine operation of Source ID P101 and fabric collectors (IDs C101A, C101B and C101C).

**# 020 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

All occurrences (associated with Source ID P101) of removing solvent from the drums or placing solvent into drums shall be carried out in a manner designed to minimize the evaporative loss or fugitive emission of solvent into the atmosphere to maximum extent practicable.

**VII. ADDITIONAL REQUIREMENTS.****# 021 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The specific process equipment, process steps and raw materials used in Source ID P101 shall not be changed from those described in the application and supplemental materials submitted for Plan Approvals 18-00011J and 18-313-019E without prior approval of the Department except as may be required to comply with the requirements of any condition contained herein.

**# 022 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) Source ID P101 is a Super Refined Oils (SRO) process which includes the following pieces of equipment:

**(1) OP-3/4 SUPER REFINING SYSTEM****OP-3/4 Solvent Feed Tank**

TNK-203205 Madden Steel 1,400 gallon Column feed tank

PMP-245273 Versamatic, 60 gpm Solvent charge pump

PMP-202235 Versamatic, 60 gpm Product charge pump

**OP-3/4 Oil/Solvent Feed Tank**

TNK-203253 1,500 gallon Oil/Solvent feed tank

PMP-223238 Tri-Clover, 12 gpm Oil/Solvent feed pump

**OP-3/4 Oil Processing Columns**

HEX-203224 Andrew B. Duffy 700 gallon Super Refined Oils column

HEX-203225 Andrew B. Duffy 700 gallon Super Refined Oils column

PMP-203227 Tri-Clover, 12 gpm Column feed pump

PMP-203255 Nash 200 cfm moisture removal vacuum

**SECTION D. Source Level Requirements****OP-3/4 Oil/Solvent Surge Tank**

TNK-223259 Indian Tuff 1,400 gallon Oil/Solvent surge tank  
PMP-223254 Durco, 15 gpm solvent vaporizer feed pump

**OP-3/4 Oil/Solvent Separation System (Modular Process Systems)**

HEX-223237 Perry Products, 50 ft<sup>2</sup> Solvent vaporizer  
SEP-223208 Taylor Tank, 200 gallon Solvent separator  
HEX-223251 Perry Products, 85 ft<sup>2</sup> Solvent condenser  
PMP-223252 Durco, 10 gpm stripper feed pump  
HEX-223245 Perry Products, 40 ft<sup>2</sup> stripper feed heater  
SEP-223210 Taylor Tank, 24.5 foot stripper column  
HEX-223247 Perry Products, stripper overhead condenser  
PMP-223256 TopLine, 10 gpm Sealless stripper bottoms pump  
HEX-223239 Perry Products, Inc. 41 ft<sup>2</sup> bottoms cooler  
TNK-223251 Indian Tuff 800 gallon finished oil day tank

**OP-3/4 Solvent Recovery System (Modular Process Systems)**

HEX-233231 Rudicon, 20 ft<sup>2</sup> Solvent vapor cooler  
HEX-233233 Rudicon, 20 ft<sup>2</sup> Solvent vapor cooler  
HEX-233235 Rudicon, 39 ft<sup>2</sup> vacuum pump cooler  
PMP-233243 Kinney, 200 CFM vacuum pump  
PMP-233241 Durco 10 gpm Solvent circulating pump  
SEP-233204 Taylor Tank, 65 gallon vapor/liquid separator

**OP-3/4 Vent Condenser System**

HEX-243250 Xchanger TV-075 Vent condenser  
TNK-243266 50 gallon Solvent receiver

**OP- 3/4 Product Tank**

TNK-223-256 Indian Tuff Tank 3,300 gallon product oil hold tank

**(2) OP-2/5 SUPER REFINING SYSTEM****OP-2/5 Solvent Feed Tank**

TNK-202252 JD Cousins, 2000 gallon solvent feed tank  
PMP-245272 Versamatic 60 gpm Solvent charge pump  
PMP-202236 Versamatic, 60 gpm Product charge pump

**OP-2/5 Oil/Solvent Feed Tank**

TNK-202204 JD Cousins, 2,000 gallon Oil/Solvent feed tank  
PMP-202239 Bradford 12 gpm Oil/Solvent feed pump

**OP-2/5 Oil Processing Columns**

HEX-202229 Andrew B. Duffy 700 gallon Super Refined Oils column  
HEX-202230 JD Cousins 700 gallon Super Refined Oils column  
PMP-202226 Tri-Clover 12 gpm oil column pump  
PMP-202213 Nash 200 cfm moisture removal vacuum

**OP-2/5 Oil/Solvent Surge Tank**

TNK-222258 JD Cousins, 2500 gallon surge tank  
PMP-222253 Durco, 15 gpm Solvent vapor feed pump

**OP-2/5 Oil/Solvent Separation System (Modular Process Systems)**

HEX-222236 Perry Products, 50 ft<sup>2</sup> Solvent vaporizer #1  
SEP-222207 Taylor Tank, 200 gallon Solvent separator  
HEX-222240 Perry Products, 85 ft<sup>2</sup> Solvent condenser

**SECTION D. Source Level Requirements**

PMP-222251 Durco, 10 gpm stripper feed pump  
HEX-222244 Perry Products, 40 ft2 stripper feed heater  
SEP-222209 Taylor Tank, 24.5 foot stripper column  
HEX-222246 Perry Products, stripper overhead condenser  
PMP-222250 TopLine, 10 gpm Sealless stripper bottoms pump  
HEX-222238 Perry Products, 41 ft2 bottoms cooler  
TNK-222250 Indian Tuff, 800 gallon finished oil day tank

**OP-2/5 Solvent Recovery System (Modular Process Systems)**

HEX-232230 Rubicon, 20 ft2 Solvent vapor cooler  
HEX-232232 Rubicon, 20 ft2 Solvent vapor cooler  
HEX-232234 Rubicon, 39 ft2 vacuum pump cooler  
PMP-232242 Kinney, 200 CFM vacuum pump  
PMP-232240 Durco, 10 gpm Solvent circulating pump  
SEP-232-203 Taylor Tank, 65 gallon vapor/liquid separator

**OP-2/5 Vent Condenser System**

HEX-242249 Xchanger- TV-075, Vent condenser  
TNK-242267 50 gallon Solvent receiver

**OP-2/5 Spent Solvent Tanks**

TNK-077700 Kennedy Tank, 20,000 gallon storage tank  
PMP-077722 Kontro, 100 gpm Sealless loading pump  
TNK-202254 JD Cousins, 3000 gallon Spent solvent tank  
PMP-202240 Kontro, 50 gpm Sealless transfer pump.

**OP-2/5 Product Tank**

TNK-222257 Indian Tuff Tank 3,300 gallon product oil hold tank

**(3) OP-3/4 AND OP-2/5 SHARED EQUIPMENT**

TNK-212271 Kennedy Tank, Decant Water/Solvent Receiver  
CLR-021331 Cooling Technology Inc. 20 ton chiller system  
PMP-021351 100 gpm Intermediate temperature coolant pump  
CON-211201 Young Industries, Resin Bag Dump Station  
FIL-211223 Young Industries Fresh Resin Conveyer Receiver  
FIL-207224 Young Industries, Spent Resin Conveying Station  
HEX-046900 NESTEC, 3000 SCFM Regenerative thermal oxidizer  
TNK-222262 Kennedy Tank, Clean-in-place (CIP) tank

(b) The air contaminant emissions from the SRO process (Source ID P101) shall be controlled by the following:

(1) The S-105 resin bag dump station of Source ID P101 shall be controlled by a Young Industries, Inc. FBD 30-6 fabric collector (ID C101A).

(2) The fresh resin conveying system of Source ID P101 shall be controlled by a Young Industries, Inc. VC24-12-34 fabric collector (ID C101B).

(3) In accordance with 25 Pa. Code Sections 127.1 and 127.12, the spent resin conveying system of Source ID P101 shall be controlled by a Young Industries, Inc. VC48-16-40 fabric collector (ID C101C).

(4) In accordance with 25 Pa. Code Sections 127.1 and 127.12, the exhaust from the Young Industries, Inc. VC48-16-40 fabric collector (ID C101C) shall be controlled by the regenerative thermal oxidizer (C101F).

(5) In accordance with 25 Pa. Code Sections 127.1 and 127.12, the air contaminant emissions from the OP-3/4 Solvent Feed Tank, OP-3/4 Oil Processing Columns, OP-3/4 Surge Tank, OP-3/4 Oil/Solvent Separation System, OP-3/4 Solvent

**SECTION D. Source Level Requirements**

Recovery System, and the OP-3/4 Product Tank of Source ID P101 shall be controlled by the OP-3/4 Vent Condenser System (ID C101E) and the regenerative thermal oxidizer (ID C101F).

(6) In accordance with 25 Pa. Code Sections 127.1 and 127.12, the air contaminant emissions from the OP-2/5 Solvent Feed Tank, OP-2/5 Oil Processing Columns, OP-2/5 Surge Tank, OP-2/5 Oil/Solvent Separation System, OP-2/5 Solvent Recovery System, OP-2/5 Spent Solvent Tanks, and the OP-2/5 Product Tank of Source ID P101 shall be controlled by the OP-2/5 Vent Condenser System (ID C101E) and the regenerative thermal oxidizer (ID C101F).

(7) In accordance with 25 Pa. Code Sections 127.1 and 127.12, the regenerative thermal oxidizer (ID C101F) shall control air contaminant emissions from the exhaust streams of the OP-3/4 & OP-2/5 Vent Condenser Systems (ID C101E) and from the decant water/solvent receiver (TNK-212271).

**# 023 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

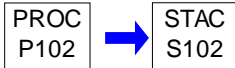
No hazardous air pollutant other than hexane and no volatile organic mixture with greater volatility than commercial nominal 50% hexane shall be used in Source ID P101. Commercial hexane is a mixture of six-carbon alkanes.

**SECTION D. Source Level Requirements**

Source ID: P102

Source Name: SYNTHESIS AREA-GENERAL PRODUCTS

Source Capacity/Throughput:

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.13]****Processes**

The permittee shall not emit particulate matter from the exhaust of Source ID P102 in excess of 0.04 grain per dry standard cubic foot, when the effluent gas volume is less than 150,000 dry standard cubic feet per minute.

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

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

The total combined ethylene oxide and propylene oxide emissions from Source ID P102 shall not exceed 2.5 tons in any 12 consecutive month period.

**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

The total combined volatile organic compound emissions from the sources associated with Source ID P102 shall not exceed 36.5 tons in any 12 consecutive month period.

**# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

There shall be no emission of ethylene oxide and/or propylene oxide from process vessel R-18 associated with Source ID P102.

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

The emission of total combined hazardous air pollutants (HAPs) from process vessel R-18 associated with Source ID P102 shall not exceed 1.40 ton in any 12 consecutive month period.

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

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

(a) The permittee shall perform sampling and analysis for every tenth batch of ethylene oxide or propylene oxide product produced in any chemical process vessel incorporated in Source ID P102 at the conclusion of epoxide cookout in order to determine the amount of epoxide which will be emitted.

(b) The permittee shall sample and analyze the first batch of an ethylene oxide product produced at the start of each year and every tenth batch thereafter within the calendar year.

(c) The permittee shall sample and analyze the first batch of a propylene oxide product produced at the start of each year and every tenth batch thereafter within the calendar year.

**SECTION D. Source Level Requirements**

(d) Sampling and analysis is not required on any batch involving the use of isopropyl alcohol or ethanol.

(e) The epoxide emissions from batches which are not sampled and analyzed shall be reported as 0.53 pounds of ethylene oxide per 1,000 pounds of product and 0.37 pounds of propylene oxide per 1,000 pounds of product (when utilizing these epoxides as a reagent). The permittee shall perform an analysis of sampling data every five years for purposes of re-evaluating and verifying the validity of these presumptive values.

(f) The requirements of subparagraphs (a) through (e) of this condition notwithstanding, the permittee shall perform sampling and analysis for each batch of new ethylene oxide or propylene oxide product produced. In addition, the permittee shall perform sampling and analysis for each batch of the following ethylene oxide products produced: Incroquat 26, Incroquat Behenyl HE, Incroquat OSC, and Crodamine SC.

**III. MONITORING REQUIREMENTS.**

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

**IV. RECORDKEEPING REQUIREMENTS.****# 007 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

For any batches of such products which involve the use of isopropyl alcohol or ethanol, the epoxide emissions shall be estimated using the best available data and this data shall be recorded.

All such records shall be retained for at least 5 years and shall be made available to the Department upon request.

**# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall keep records of the identity and quantity of materials processed in process vessel R-18 associated with Source ID P102 on a monthly basis.

(b) The records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request.

**# 009 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall keep records of the supporting calculations on a monthly basis for the sources associated with Source ID P102 and shall verify compliance with the VOC emission limitation in any 12 consecutive month period.

(b) The permittee shall keep records of the supporting calculations on a monthly basis for process vessel R-18 associated with Source ID P102 and shall verify compliance with the total combined HAPs emission limitation in any 12 consecutive month period.

(c) The permittee shall keep records of the supporting calculations on a monthly basis for the sources associated with Source ID P102 and shall verify compliance with the total combined ethylene oxide and propylene oxide emission limitation in any 12 consecutive month period.

(d) The records shall document all assumptions made in performing any such calculations and all other pertinent supporting data used to verify compliance.

(e) The records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request.

**SECTION D. Source Level Requirements****V. REPORTING REQUIREMENTS.****# 010 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

- (a) The permittee shall submit reports to the Department on a semi-annual basis that include the supporting calculations to verify compliance with VOC emission limitation for Source ID P102 in any 12 consecutive month period.
- (b) The permittee shall submit reports to the Department on a semi-annual basis that include the supporting calculations to verify compliance with total combined HAPs emission limitation for process vessel R-18 associated with Source ID P102 in any 12 consecutive month period.
- (c) The permittee shall submit reports to the Department on a semi-annual basis that include the supporting calculations to verify compliance with the total combined ethylene oxide and propylene oxide emission limitation for Source ID P102 in any 12 consecutive month period.
- (d) The reports shall include documentation of all assumptions made in performing any such calculations and all other pertinent supporting data used to verify compliance.
- (e) The semi-annual reports shall be submitted to the Department no later than March 1 (for January 1 through December 31 of the previous year) and September 1 (for July 1 of the previous year through June 30 of the current year).

**VI. WORK PRACTICE REQUIREMENTS.****# 011 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

Any batch of product requiring the use of ethylene oxide or propylene oxide produced in chemical processing vessels R-3 or R-7 shall be subject to an epoxide cookout time after the cessation of epoxide feed of no less than 90 minutes prior to the vessel being vented to the atmosphere.

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

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

Any batch of product requiring the use of ethylene oxide or propylene oxide produced in chemical processing vessels R-1, R-4, R-5, R-8, R-10, R-11, R-14, R-15, R-16 or R-17 shall be subject to an epoxide cookout time after the cessation of epoxide feed of no less than 30 minutes prior to the vessel being vented to the atmosphere.

**VII. ADDITIONAL REQUIREMENTS.****# 013 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

- (a) Source ID P102 is the synthesis area - general products, which consists of 13 batch chemical processing vessels and various pieces of ancillary equipment (process condensers, condenser receivers, catch tanks, vacuum pumps, etc):
- (1) R-1, 7347 gallon capacity Mueller model 143583-2 vessel (nominally identified as a 6000 gallon vessel) equipped with a 360 square foot process condenser.
  - (2) R-3, 2553 gallon capacity Mueller model P12547 vessel (nominally identified as a 2000 gallon vessel) equipped with a 213 square foot process condenser.
  - (3) R-4, 4011 gallon capacity Lee Metal model A-3284 vessel (nominally identified as a 2000 gallon vessel).
  - (4) R-5, 2275 gallon capacity Pfaudler model RA78-2000 vessel (nominally identified as a 2000 gallon vessel).
  - (5) R-7, 3836 gallon capacity Mueller model P17103 vessel (nominally identified as a 3000 gallon vessel) equipped with a 421 square foot process condenser.

**SECTION D. Source Level Requirements**

- (6) R-8, 7377 gallon capacity Mueller model P19821 vessel (nominally identified as a 6000 gallon vessel) equipped with a 466 square foot process condenser.
- (7) R-10, 4612 gallon capacity Pfaudler model R118-0161 vessel (nominally identified as a 4000 gallon vessel) equipped with a 213 square foot process condenser.
- (8) R-11, 6716 gallon capacity Norwalk model 7787B vessel (nominally identified as a 6000 gallon vessel).
- (9) R-14, 7250 gallon capacity Mueller model 127767 vessel (nominally identified as a 6000 gallon vessel) equipped with a 300 square foot process condenser.
- (10) R-15, 2155 gallon capacity Duffy model 1-96-2066 vessel (nominally identified as a 2000 gallon vessel) equipped with a 458 square foot process condenser.
- (11) R-16, 11,238 gallon capacity Mueller model 194941 vessel (nominally identified as a 10,000 gallon vessel) equipped with a 500 square foot process condenser.
- (12) R-17, 5066 gallon capacity Mueller model 213314 vessel (nominally identified as a 4000 gallon vessel) equipped with a 250 square foot process condenser.
- (13) R-18, 8420 gallon capacity vessel (nominally identified as a 7000 gallon vessel) equipped with a process condenser.
- (14) TNK-466, 6,600 gallon capacity, Mueller model 291299 equipped with a 12.2 square foot process condenser.
- (b) The conditions of Source ID P102 have applicability to all operation of any batch chemical processing vessels identified above other than any operation of the respective processing vessels to manufacture products using methyl chloride as a reactant. When any of the respective processing vessels is being used to manufacture products using methyl chloride as a reactant, the vessel is subject to the conditions of Source ID P103.

**SECTION D. Source Level Requirements**

Source ID: P103

Source Name: SYNTHESIS AREA-METHYL CHLORIDE

Source Capacity/Throughput:

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.13]****Processes**

[Additional authority for this permit condition is derived from 25 Pa. Code Section 123.13(c)(1)(i)]

No person shall permit the emission into the outdoor atmosphere of particulate matter from the exhaust of ID C103C associated with Source ID P103 in excess of 0.04 grain per dry standard cubic foot.

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

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

The emissions of volatile organic compounds (VOCs) from Source ID P103 shall not exceed 1.42 tons in any 12 consecutive month period.

**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

The emissions of total combined hazardous air pollutants (HAPs) from Source ID P103 shall not exceed 2.08 tons in any 12 consecutive month period.

**Control Device Efficiency Restriction(s).****# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

The packed bed scrubber (ID C103C) shall provide a hydrogen chloride removal efficiency of at least 99.5%.

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

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

The Methyl Chloride regenerative thermal oxidizer (ID C103A) shall subject all methyl chloride emissions fed to it from Source ID P103 to a minimum destruction efficiency of at least 99% or reduce the methyl chloride emissions to a concentration of less than 10 ppmv (as propane).

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

(a) Within 180 days of startup of the new Regenerative Thermal Oxidizer (ID C103A), Water Quench (C103B) and Packed Bed Scrubber (C103C), and every five years following the date of the previous test thereafter, the permittee shall submit a source testing protocol for EPA reference method testing programs for volatile organic compounds (VOCs) and Hazardous Air Pollutants (HAPs) on the inlets and outlets of C103A and C103C while these control devices are being used to control emissions from Source ID P103 to determine the emission rates of VOC and HAPs as well as the control efficiency of the RTO and Packed Bed Scrubber in order to demonstrate compliance with the emissions limitations and control device

**SECTION D. Source Level Requirements**

efficiency requirements.

(b) The permittee shall respond to any request for additional information from BAQ Source Testing within 30 days, or as allowed by the Department.

(c) Within 90 days of receipt of an approved testing protocol from BAQ Source Testing, the permittee shall conduct the approved EPA reference method testing programs on the Regenerative Thermal Oxidizer and Packed Bed Scrubber inlets and outlets while Source ID P103 is operating at maximum routine operating conditions, or under other conditions as approved by the Department.

**III. MONITORING REQUIREMENTS.**

**# 007 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

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

The packed bed scrubber (ID C103C) shall be equipped with the following:

- (a) a scrubbing solution pH monitor and recorder that shall accurately monitor and record the scrubbing solution pH,
- (b) a scrubber recirculation liquid flow meter and recorder shall accurately monitor and record the scrubber recirculation liquid flow rate,
- (c) a pressure differential gauge or monitor that will accurately measure the pressure differential across the scrubber, and
- (d) an alarm that will sound should a low scrubber recirculation liquid flow rate, low pH, and/or excessive pressure differential situation ever occur.

**# 008 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

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

The water quench (ID C103B) shall be equipped with the following monitors:

- (a) a quench liquid flow meter that shall accurately monitor the water quench's water flow, and
- (b) an alarm that will sound whenever the quench liquid flow rate drops below 80 gallons per minute.

**# 009 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

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

The Methyl Chloride regenerative thermal oxidizer (ID C103A) shall be equipped with the following monitors:

- (a) a continuous RTO combustion chamber temperature monitor and recorder that shall accurately monitor and record the combustion chamber temperature during any period that ID C103A is in use,
- (b) a UV flame scanner, and
- (c) an alarm that will sound whenever the RTO's combustion chamber temperature drops below 1650°F and/or whenever a flame-out situation occurs.

**IV. RECORDKEEPING REQUIREMENTS.**

**# 010 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

For each batch in which methyl chloride is used as a reactant, regardless of the size, the permittee shall keep the following

**SECTION D. Source Level Requirements**

records:

- (a). the identification of the actual vessel used,
- (b). the identification of the compound produced,
- (c). the batch size, and
- (d). the dates and times that the reactor was being used and the dates and times methyl chloride gases were actually being vented from the reactor.

These records shall be retained for a minimum of 5 years and shall be made available to the Department upon request.

**# 011 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall keep records of the following for Source ID P103:

- (a) the combustion chamber temperature of ID C103A on a continuous basis, including the dates and times of all temperature readings,
- (b) the scrubber recirculation liquid flow rate and pH on a continuous basis for ID C103C, and
- (c) any occasion when an alarm required herein is activated and any situation when production of a compound using methyl chloride as a reactant occurs without the simultaneous operation of the regenerative thermal oxidizer (ID C103A), quench (ID C103B) and packed bed scrubber (ID C103C). All alarm records shall include identification of the specific air cleaning device operating parameter for which the alarm was activated, the date and time the alarm occurred, the duration of the alarm period and the extent of the air cleaning device operating parameter deviation during the alarm period. All records of regenerative thermal oxidizer (ID C103A), quench (ID C103B) or packed bed scrubber (ID C103C) non-operation shall include the identification of the specific air cleaning device which was not operated, the date, time and duration of nonoperation and the specific reasons for non-operation.

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.**

The permittee shall keep records of the supporting calculations used to verify compliance with the particulate matter emission limitation, for Source ID P103.

These records shall be retained for a minimum of 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 keep records of the supporting calculations on a monthly basis for Source ID P103 and shall verify compliance with the VOC emission limitation in any 12 consecutive month period.
- (b) The permittee shall keep records of the supporting calculations on a monthly basis for Source ID P103 and shall verify compliance with the total combined HAPs emission limitation in any 12 consecutive month period.
- (c) The records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request.

**# 014 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

- (a) The permittee shall keep records of the identity and quantity of materials processed in process vessels R-8, R-15, and R-18 associated with Source ID P103 on a monthly basis.
- (b) The records shall be retained for a minimum of five (5) years and shall be made available to the Department upon

**SECTION D. Source Level Requirements**

request.

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

- (a) The permittee shall submit reports to the Department on a semi-annual basis that include the supporting calculations to verify compliance with VOC emission limitation for Source ID P103 in any 12 consecutive month period.
- (b) The permittee shall submit reports to the Department on a semi-annual basis that include the supporting calculations to verify compliance with total combined HAPs emission limitation for Source ID P103 in any 12 consecutive month period.
- (c) The semi-annual reports shall be submitted to the Department no later than March 1 (for January 1 through December 31 of the previous year) and September 1 (for July 1 of the previous year through June 30 of the current year).

**VI. WORK PRACTICE REQUIREMENTS.****# 016 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

The Methyl Chloride RTO (ID C103A) shall subject any air contaminant emissions fed to it from Source ID P103 to a temperature of at least 1,650° F for a residence time of at least 1.0 second.

**# 017 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

The packed bed scrubber (ID C103C) shall:

- (a) use a caustic soda scrubbing solution with a concentration of not less than 10%, and
- (b) maintaining a scrubber recirculation liquid flow rate of not less than 180 gallons per minute.

**# 018 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

The permittee shall maintain a quench liquid flow rate in the water quench (ID C103B) of not less than 80 gallons per minute.

**VII. ADDITIONAL REQUIREMENTS.****# 019 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

- (a) Source ID P103 is the synthesis area - methyl chloride, which consists of 3 batch chemical processing vessels and various pieces of ancillary equipment (process condensers, condenser receivers, catch tanks, vacuum pumps, etc):
- (1) R-8, 7377 gallon capacity Mueller model P19821 vessel (nominally identified as a 6000 gallon vessel) equipped with a 466 square foot process condenser.
  - (2) R-15, 2155 gallon capacity Duffy model 1-96-2066 vessel (nominally identified as a 2000 gallon vessel) equipped with a 458 square foot process condenser.
  - (3) R-18, 8420 gallon capacity vessel (nominally identified as a 7000 gallon vessel) equipped with a process condenser.

**SECTION D. Source Level Requirements**

(b) The conditions of Source ID P103 have applicability to the operation of any batch chemical processing vessels identified above to manufacture products using methyl chloride as a reactant. When any of the respective processing vessels is being used other than to manufacture products using methyl chloride as a reactant, the vessel is subject to the conditions of Source ID P102.

(c) The air contaminant emissions shall be controlled by an air cleaning system consisting of the following whenever any batch chemical processing vessels identified above is being used to manufacture products using methyl chloride as a reactant.

(1) ID C103A is a NESTEC, Inc. regenerative thermal oxidizer (RTO) with a maximum heat input capacity of 903,385 Btu/hr that is fired on natural gas, or liquid petroleum gas during periods of natural gas curtailment.

(2) ID C103B is a water quench.

(3) ID C103C is a NESTEC, Inc. packed bed caustic (sodium hydroxide) scrubber.

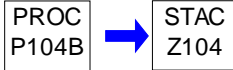
(d) No batch chemical processing vessel of Source ID P103 being used to manufacture products using methyl chloride as a reactant shall be vented to the atmosphere other than through the air cleaning system (IDs C103A, C103B and C103C).

**SECTION D. Source Level Requirements**

Source ID: P104B

Source Name: STORAGE TANKS &gt; 2,000 GAL

Source Capacity/Throughput:

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

The total combined VOC emissions from Source ID P104B shall not exceed 1.0 ton on a calendar year basis. Additionally, the hazardous air pollutant emissions from Source ID P104B shall not exceed 0.1 ton on a calendar year basis.

**II. TESTING REQUIREMENTS.**

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

**III. MONITORING REQUIREMENTS.**

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

**IV. RECORDKEEPING REQUIREMENTS.****# 002 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall keep records of the vapor pressure of the material stored in each storage tank of Source ID P104B, unless the storage tank is equipped with a pressure relief valve which is maintained in good operating condition and which is set to release at no less than 0.7 psig of pressure or 0.3 psig of vacuum or the highest possible pressure and vacuum in accordance with state or local fire codes or the National Fire Prevention Association guidelines or other national consensus standards acceptable to the Department.

These records shall be retained for a minimum of 5 years and shall be made available to the Department upon request.

**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall keep records of the supporting calculations used to verify compliance with the annual VOC and hazardous air pollutant emission limitations for Source ID P104B. These records shall include, but are not limited to, the identity of the contents of each tank and the annual throughput of each tank.

These records shall be retained for a minimum of 5 years and shall be 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.****# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Each tank of Source ID P104B shall only be used to store the material specifically identified as being stored in the

**SECTION D. Source Level Requirements**

respective tank in any plan approval application, request for determination, or supplemental materials submitted to the Department, and approved by the Department in writing.

**# 005 [25 Pa. Code §129.57]****Storage tanks less than or equal to 40,000 gallons capacity containing VOCs**

Any storage tank of Source ID P104B which contains volatile organic compounds with a vapor pressure greater than 1.5 psia under actual storage conditions shall have a pressure relief valve which is maintained in good operating condition and which is set to release at no less than 0.7 psig of pressure or 0.3 psig of vacuum or the highest possible pressure and vacuum in accordance with state or local fire codes or the National Fire Prevention Association guidelines or other national consensus standards acceptable to the Department.

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

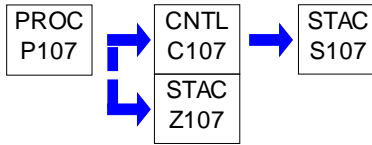
Source ID P104B includes 55 VOC-containing storage tanks greater than 2,000 gallons each which do not meet the applicability criteria of 40 CFR Part 60 Subpart Kb.

**SECTION D. Source Level Requirements**

Source ID: P107

Source Name: ETHYLENE OXIDE STORAGE SYSTEM

Source Capacity/Throughput:

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

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

(a) The permittee shall not emit ethylene oxide (EO) from Source ID P107 in excess of 1.0 ton in any 12 consecutive month period.

(b) The emission of ethylene oxide from the exhaust of ID C107 associated with Source ID P107 shall not equal or exceed 50 pounds in any 12 consecutive month period.

**Throughput Restriction(s).****# 002 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

The permittee shall not unload more than 100 ethylene oxide containing rail cars in any 12 consecutive month period.

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

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

Control Device ID C107 shall destroy the EO emissions from railcar unloading and tank depressurization operations of Source ID P107 at a destruction efficiency of no less than 99% (by weight).

**# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

The scrubber liquid flow rate of ID C107 associated with Source IDs P107 and P118 shall be no less than 18 gallons per minute during railcar unloading and tank depressurization operations associated with Source IDs P107 and P118.

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

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

The scrubber liquid pH of ID C107 associated with Source IDs P107 and P118 shall be no greater than 1.0 during railcar unloading and tank depressurization operations associated with Source IDs P107 and P118.

**II. TESTING REQUIREMENTS.**

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

**SECTION D. Source Level Requirements****III. MONITORING REQUIREMENTS.****# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

(a) The permittee shall install and maintain instrumentation to continuously and accurately measure the pressure differential across ID C107 associated with Source IDs P107 and P118 and the actual pressure differential shall be displayed on a continuous basis during railcar unloading and tank depressurization operations associated with Source IDs P107 and P118.

(b) The permittee shall install and maintain instrumentation to continuously and accurately measure the scrubber liquid flow rate of ID C107 associated with Source IDs P107 and P118 and the actual scrubber water flow rate shall be displayed on a continuous basis during railcar unloading and tank depressurization operations associated with Source IDs P107 and P118.

(c) The permittee shall monitor the pH of the scrubber liquid of ID C107 associated with Source IDs P107 and P118 at least once per day in which railcar unloading and tank depressurization operations associated with Source IDs P107 and P118 take place.

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

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

Source ID P107 shall be equipped with an MTS (magneto restrictive) tank level gauge, a temperature monitor, and Fisher-Rosemont, or equivalent, pressure gauges. The ethylene oxide storage tank vault shall be equipped with a Sensidyne, or equivalent, flammable gas monitor. The outputs from all monitors shall be displayed in the control room. The permittee shall also keep on hand a portable photoionization detector (PID) or flame ionization detector (FID) to be used to identify the exact location of a leak should any of the other monitoring devices indicate that a leak may be present.

**IV. RECORDKEEPING REQUIREMENTS.****# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall keep records of the pressure differential across ID C107 associated with Source IDs P107 and P118 at least once per fifteen (15) minutes during railcar unloading and tank depressurization operations associated with Source IDs P107 and P118, and shall record the corrective actions taken if the pressure differential is outside the designed pressure range.

(b) The permittee shall keep records of the scrubber liquid flow rate of ID C107 associated with Source IDs P107 and P118 at least once per fifteen (15) minutes during railcar unloading and tank depressurization operations associated with Source IDs P107 and P118 to verify compliance with the scrubber liquid flow rate limitation, and shall record the corrective actions taken if the scrubber liquid flow rate is outside the designed flow rate range.

(c) The permittee shall keep records of the scrubber liquid pH of ID C107 associated with Source IDs P107 and P118 at least once per day in which railcar unloading and tank depressurization operations associated with Source IDs P107 and P118 take place to verify compliance with the scrubber liquid pH limitation, and shall record the corrective actions taken if the scrubber liquid pH is outside the designed pH range.

(d) The records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request.

**# 009 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

For each rail car unloading to Source ID P107, the following shall be recorded:

**SECTION D. Source Level Requirements**

- (a) The tank level prior to railcar unloading
- (b) The tank temperature prior to railcar unloading
- (c) The tank pressure prior to railcar unloading
- (d) The tank pressure after railcar unloading

These records shall be retained for a minimum of 5 years and shall be made available to the Department upon request.

**# 010 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

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

The permittee shall document all instances when the flammable gas monitor, associated with Source ID P107, detects ethylene oxide concentrations above the established safety levels or when the PID or FID is used. The permittee shall record the date and time of each occurrence and the corrective actions taken to return the ethylene oxide concentrations to acceptable levels.

These records shall be retained for a minimum of 5 years and shall be made available to the Department upon request.

**# 011 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

(a) The permittee shall keep records of the supporting calculations on a monthly basis for Source ID P107 to verify compliance with the EO emission limitations in any 12 consecutive month period.

(b) The records shall be retained for a minimum of five (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 number of EO railcar unloadings associated with Source ID P107 on a monthly basis and shall verify compliance with the EO railcar unloading limitation in any 12 consecutive month period.

(b) The records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request.

**V. REPORTING REQUIREMENTS.**

**# 013 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

The permittee shall submit annual reports of the following for Source ID P107:

- (a) The supporting calculations to verify compliance with EO emission limitations in any 12 consecutive month period.
- (b) The data verifying compliance with the annual ethylene oxide rail car unloading limitation.
- (c) The annual reports shall be submitted to the Department no later than March 1 (for January 1 through December 31 of the previous year).

**VI. WORK PRACTICE REQUIREMENTS.**

**# 014 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

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

(a) The air contaminant emissions from the railcar unloading process and tank depressurization operations associated with Source ID P107 shall be controlled by ID C107. The permittee shall only vent EO emissions from the unloading process or depressurize the tank associated with Source ID P107 with the simultaneous operation of ID C107.

**SECTION D. Source Level Requirements**

(b) All EO railcars shall be first connected to the liquid transfer line and vapor balance line associated with Source ID P107 before EO unloading is initiated. Once unloading is completed, all transfer lines shall be flushed with nitrogen before they are disconnected and any EO from the transfer lines shall be captured in the tank, the railcar, or be directed to ID C107.

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

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

The permittee shall maintain and operate Source ID P107 as described in the application and supplemental materials submitted for Plan Approval 18-313-019C and Plan Approval 18-00011I as well as in accordance with all the conditions contained herein.

**# 016 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

Source ID P107 shall be equipped with at least one rupture disk set at 95 psig or greater and at least one pressure relief valve set at 90 psig or greater. Source ID P107 shall not be vented except through the distribution system, the return line to the railcar, the relief valve, or ID C107.

**# 017 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this permit condition is derived from a request by the permittee.]

(a) Exempt from this condition is equipment operated entirely under a vacuum, equipment that processes fluids that contain less than 10% by weight of VOCs, and equipment in service handling compounds with vapor pressures less than 0.044 psia at 68 degrees Fahrenheit.

(b) For the equipment included in Source ID P107 not exempted under subparagraph (a), the permittee shall:

(1) Install a second valve, blind flange, plug, cap, or other equivalent sealing system on open ended lines, except for pressure relief valves.

(2) Develop and initiate a leak detection program including liquid leaks for pumps, valves, compressors, vessels, and safety pressure relief valves, as well as a repair program for these components that cause a hydrocarbon detection instrument reading equal to or greater than 500 ppm. The leak detection and repair program shall include the following:

(i) A leak check during every calendar quarter of the components, by methods referenced in 25 Pa. Code § 139.14.

(ii) Attachment of an identification tag to the leaking component causing an instrument reading equal to or greater than 500 ppm. The identification tag shall be waterproof, readily visible, bear an identification number, the date on which the leak was detected and indicate if the component cannot be repaired until a process shutdown that will not occur within 15 days from the date of detection.

(iii) Repair and retest of a leaking component within 15 days or as soon as possible if a shutdown is required to make a repair.

(iv) A weekly visual check of pumps in light liquid service for indications of leaks.

(v) Check, by methods referenced in 25 Pa. Code § 139.14, a safety valve within 24 hours after it has vented to the atmosphere to assure that the safety relief valve has released.

(vi) The initiation and maintenance log of leaking components. The log shall contain, at a minimum, the total number of components checked, the total number of components found leaking, the location of the leaking component, the type of component, the tag identification number, the date on which the component was discovered to be leaking, date of repair, leak detection instrument reading after repairs, the components that cannot be repaired until a process shutdown that will

**SECTION D. Source Level Requirements**

not occur within 15 days from the date of detection and a record of the calibration of the leak detection monitoring instrument. The monitoring log shall be retained by the permittee for a minimum of 2 years after the date on which an entry was made. The log shall be made available to the Department upon request.

(c) The permittee may submit to the Department a list of components the inspection of which would involve a significant element of danger. The Department may exempt the components on the list from the requirements in this condition if the permittee can demonstrate to the satisfaction of the Department that a significant element of danger exists which cannot be reasonably eliminated, and that these exemptions will not result in a significant reduction of the VOC emissions control effectiveness.

**VII. ADDITIONAL REQUIREMENTS.****# 018 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

The permittee shall minimize the number of connectors and valves associated with Source ID P107 in order to reduce the fugitive emissions associated with Source ID P107.

**# 019 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) Source ID P107 is a J.D. Cousins 30,000 gallon ethylene oxide storage tank and associated distribution system and railcar unloading system.

(b) The distribution system shall consist of the distribution equipment and a three inch or less stainless steel line from the storage tank, which will then branch off into various one inch lines to individual ethoxylation reactors.

(c) The railcar unloading system shall consist of liquid transfer and vapor balance lines, as well as a connection to the scrubber

(d) ID C107 is the railcar unloading scrubber, which is a counter-current sulfuric acid scrubber designed to handle gas volumes of 34 to 39 SCFM.

**# 020 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

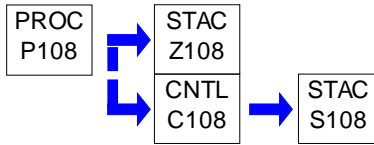
The permittee shall equip the vent line associated with Source ID P107 with a pressure relief valve set at 250 psig or greater, as described in item 4 of a July 22, 1999 letter from Gary L. Jones to David Aldenderfer.

**SECTION D. Source Level Requirements**

Source ID: P108

Source Name: DIMETHYL SULFATE STORAGE SYSTEM

Source Capacity/Throughput:

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

# 001 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

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

The total combined volatile organic compounds (VOCs) emissions from Source IDs P108 and P109 shall not exceed 0.05 tons in any 12 consecutive month period. Additionally, the total combined hazardous air pollutants (HAPs) emissions from Source IDs P108 and P109 shall not exceed 0.05 tons in any 12 consecutive month period.

**Throughput Restriction(s).**

# 002 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

The permittee shall obtain Department approval in writing prior to the storage of any material in the storage tank and distribution system of Source ID P108 other than the material specifically identified in the plan approval application for this equipment.

**II. TESTING REQUIREMENTS.**

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

**III. MONITORING REQUIREMENTS.**

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

**IV. RECORDKEEPING REQUIREMENTS.**

# 003 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

(a) The permittee shall keep records of the material throughput and the identity of the material stored in the storage tank of Source ID P108 per month.

(b) The permittee shall keep records of the supporting calculations on a monthly basis verifying compliance with the VOCs and combined HAPs emissions limitations for Source IDs P108 and P109 in any 12 consecutive month period.

(c) These records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request.

**V. REPORTING REQUIREMENTS.**

# 004 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

(a) The permittee shall submit reports to the Department on an annual basis that include the supporting calculations

**SECTION D. Source Level Requirements**

verifying compliance with the VOCs and combined HAPs emissions limitations for Source IDs P108 and P109 in any 12 consecutive month period.

(b) The annual reports shall be submitted to the Department no later than March 1 (for January 1 through December 31 of the previous year).

**VI. WORK PRACTICE REQUIREMENTS.****# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

The vapor space of the dimethyl sulfate storage tank of Source ID P108 shall be kept under a nitrogen blanket in order to minimize emissions of dimethyl sulfate due to breathing losses.

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

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

(a) The permittee shall first connect the flexible hose from a dedicated inlet fill line from the tank truck to the dimethyl sulfate storage tank of Source ID P108 before loading from the tank truck is initiated.

(b) The permittee shall first connect a vapor return line from the dimethyl sulfate storage tank of Source ID P108 to the tank truck before loading is initiated.

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

The permittee shall not store any liquid containing volatile organic compounds (VOC) with a vapor pressure greater than 1.5 psia (10.5 kilopascals) under actual storage conditions in the dimethyl sulfate storage tank of Source ID P108.

**# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this permit condition is derived from a request by the permittee.]

(a) Exempt from this condition is equipment operated entirely under a vacuum, equipment that processes fluids that contain less than 10% by weight of VOCs, and equipment in service handling compounds with vapor pressures less than 0.044 psia at 68 degrees Fahrenheit.

(b) For the equipment included in Source ID P108 not exempted under subparagraph (a), the permittee shall:

(1) Install a second valve, blind flange, plug, cap, or other equivalent sealing system on open ended lines, except for pressure relief valves.

(2) Develop and initiate a leak detection program including liquid leaks for pumps, valves, compressors, vessels, and safety pressure relief valves, as well as a repair program for these components that cause a hydrocarbon detection instrument reading equal to or greater than 500 ppm. The leak detection and repair program shall include the following:

(i) A leak check during every calendar quarter of the components, by methods referenced in 25 Pa. Code § 139.14.

(ii) Attachment of an identification tag to the leaking component causing an instrument reading equal to or greater than 500 ppm. The identification tag shall be waterproof, readily visible, bear an identification number, the date on which the leak was detected and indicate if the component cannot be repaired until a process shutdown that will not occur within 15 days from the date of detection.

(iii) Repair and retest of a leaking component within 15 days or as soon as possible if a shutdown is required to make a repair.

**SECTION D. Source Level Requirements**

(iv) A weekly visual check of pumps in light liquid service for indications of leaks.

(v) Check, by methods referenced in 25 Pa. Code § 139.14, a safety valve within 24 hours after it has vented to the atmosphere to assure that the safety relief valve has released.

(vi) The initiation and maintenance log of leaking components. The log shall contain, at a minimum, the total number of components checked, the total number of components found leaking, the location of the leaking component, the type of component, the tag identification number, the date on which the component was discovered to be leaking, date of repair, leak detection instrument reading after repairs, the components that cannot be repaired until a process shutdown that will not occur within 15 days from the date of detection and a record of the calibration of the leak detection monitoring instrument. The monitoring log shall be retained by the permittee for a minimum of 2 years after the date on which an entry was made. The log shall be made available to the Department upon request.

(c) The permittee may submit to the Department a list of components the inspection of which would involve a significant element of danger. The Department may exempt the components on the list from the requirements in this condition if the permittee can demonstrate to the satisfaction of the Department that a significant element of danger exists which cannot be reasonably eliminated, and that these exemptions will not result in a significant reduction of the VOC emissions control effectiveness.

**VII. ADDITIONAL REQUIREMENTS.****# 009 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Source ID P108 includes a 12,000 gallon aboveground dimethyl sulfate storage tank (TNK-078100) and distribution system. TNK-078100 is also equipped with a caustic scrubber (ID C108 - Dimethyl Sulfate Storage Tank Scrubber). The distribution system includes the distribution equipment and the piping from the storage tank to the reactors.

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

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

The permittee shall minimize the number of agitators, connectors/flanges, pumps, pressure relief valves, and valves associated with the distribution system of Source ID P108 as much as practicable in order to minimize the number of potential sources of equipment leak emissions.

**# 011 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

Source ID P108 shall be maintained and operated as described in the application and supplemental materials submitted for plan approval 18-00011D.

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

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

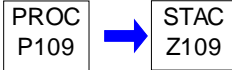
The dimethyl sulfate storage tank of Source ID P108 shall not be vented except through its distribution system, return line to the tank truck, caustic scrubber (ID C108), or the pressure safety valves.

**SECTION D. Source Level Requirements**

Source ID: P109

Source Name: EPICHLOROHYDRIN STORAGE SYSTEM

Source Capacity/Throughput:

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

# 001 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

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

The total combined volatile organic compounds (VOCs) emissions from Source IDs P108 and P109 shall not exceed 0.05 tons in any 12 consecutive month period. Additionally, the total combined hazardous air pollutants (HAPs) emissions from Source IDs P108 and P109 shall not exceed 0.05 tons in any 12 consecutive month period.

**Throughput Restriction(s).**

# 002 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

The permittee shall obtain Department approval in writing prior to the storage of any material in the storage tank and distribution system of Source ID P109 other than the material specifically identified in the plan approval application for this equipment.

**II. TESTING REQUIREMENTS.**

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

**III. MONITORING REQUIREMENTS.**

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

**IV. RECORDKEEPING REQUIREMENTS.**

# 003 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

(a) The permittee shall keep records of the material throughput and the identity of the material stored in the storage tank of Source ID P109 per month.

(b) The permittee shall keep records of the supporting calculations on a monthly basis verifying compliance with the VOCs and combined HAPs emissions limitations for Source IDs P108 and P109 in any 12 consecutive month period.

(c) These records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request.

**V. REPORTING REQUIREMENTS.**

# 004 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

(a) The permittee shall submit reports to the Department on an annual basis that include the supporting calculations verifying compliance with the VOCs and combined HAPs emissions limitations for Source IDs P108 and P109 in any 12 consecutive month period.

**SECTION D. Source Level Requirements**

(b) The annual reports shall be submitted to the Department no later than March 1 (for January 1 through December 31 of the previous year).

**VI. WORK PRACTICE REQUIREMENTS.****# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

The pressure relief valve associated with the epichlorohydrin storage tank of Source ID P109 shall be set to release at 60 psig of pressure.

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

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

(a) The permittee shall first connect the flexible hose from a dedicated inlet fill line from the tank truck to the epichlorohydrin storage tank of Source ID P109 before loading from the tank truck is initiated.

(b) The permittee shall first connect a vapor return line from the epichlorohydrin storage tank of Source ID P109 to the tank truck before loading is initiated.

(c) Once the loading of the epichlorohydrin storage tank of Source ID P109 is completed, the respective transfer lines shall be flushed with nitrogen before they are disconnected. The epichlorohydrin vapors flushed directly from the transfer lines shall be captured and not emitted directly to atmosphere.

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

The permittee shall not store any liquid containing volatile organic compounds (VOC) with a vapor pressure greater than 1.5 psia (10.5 kilopascals) under actual storage conditions in the epichlorohydrin storage tank of Source ID P109.

**# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this permit condition is derived from a request by the permittee.]

(a) Exempt from this condition is equipment operated entirely under a vacuum, equipment that processes fluids that contain less than 10% by weight of VOCs, and equipment in service handling compounds with vapor pressures less than 0.044 psia at 68 degrees Fahrenheit.

(b) For the equipment included in Source ID P109 not exempted under subparagraph (a), the permittee shall:

(1) Install a second valve, blind flange, plug, cap, or other equivalent sealing system on open ended lines, except for pressure relief valves.

(2) Develop and initiate a leak detection program including liquid leaks for pumps, valves, compressors, vessels, and safety pressure relief valves, as well as a repair program for these components that cause a hydrocarbon detection instrument reading equal to or greater than 500 ppm. The leak detection and repair program shall include the following:

(i) A leak check during every calendar quarter of the components, by methods referenced in 25 Pa. Code § 139.14.

(ii) Attachment of an identification tag to the leaking component causing an instrument reading equal to or greater than 500 ppm. The identification tag shall be waterproof, readily visible, bear an identification number, the date on which the leak was detected and indicate if the component cannot be repaired until a process shutdown that will not occur within 15 days from the date of detection.

**SECTION D. Source Level Requirements**

(iii) Repair and retest of a leaking component within 15 days or as soon as possible if a shutdown is required to make a repair.

(iv) A weekly visual check of pumps in light liquid service for indications of leaks.

(v) Check, by methods referenced in 25 Pa. Code § 139.14, a safety valve within 24 hours after it has vented to the atmosphere to assure that the safety relief valve has released.

(vi) The initiation and maintenance log of leaking components. The log shall contain, at a minimum, the total number of components checked, the total number of components found leaking, the location of the leaking component, the type of component, the tag identification number, the date on which the component was discovered to be leaking, date of repair, leak detection instrument reading after repairs, the components that cannot be repaired until a process shutdown that will not occur within 15 days from the date of detection and a record of the calibration of the leak detection monitoring instrument. The monitoring log shall be retained by the permittee for a minimum of 2 years after the date on which an entry was made. The log shall be made available to the Department upon request.

(c) The permittee may submit to the Department a list of components the inspection of which would involve a significant element of danger. The Department may exempt the components on the list from the requirements in this condition if the permittee can demonstrate to the satisfaction of the Department that a significant element of danger exists which cannot be reasonably eliminated, and that these exemptions will not result in a significant reduction of the VOC emissions control effectiveness.

**VII. ADDITIONAL REQUIREMENTS.**

**# 009 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

Source ID P109 includes a 10,000 gallon aboveground epichlorohydrin storage tank (TNK-077300) and distribution system. The distribution system includes the distribution equipment and the piping from the storage tank to the reactors.

**# 010 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

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

The permittee shall minimize the number of agitators, connectors/flanges, pumps, pressure relief valves, and valves associated with the distribution system of Source ID P109 as much as practicable in order to minimize the number of potential sources of equipment leak emissions.

**# 011 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

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

Source ID P109 shall be maintained and operated as described in the application and supplemental materials submitted for plan approval 18-00011D.

**# 012 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

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

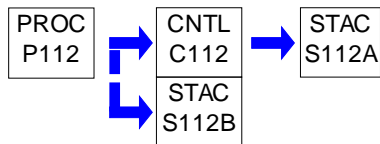
The epichlorohydrin storage tank of Source ID P109 shall not be vented except through its distribution system, return line to the tank truck, or pressure relief valve.

**SECTION D. Source Level Requirements**

Source ID: P112

Source Name: PASTILLATOR ROOM

Source Capacity/Throughput:

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

The emission of hazardous air pollutants (HAPs) from all products processed in Source ID P112 shall not equal or exceed 1.0 ton in any 12 consecutive month period.

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

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

The emission of volatile organic compounds (VOCs) from the transfer of BTMS-80 from a reactor vessel and its subsequent pastillation in Source ID P112, including the exhaust of ID C112, shall not exceed 2.56 tons in any 12 consecutive month period.

**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The emission of volatile organic compounds (VOCs) from all products processed in Source ID P112 shall not exceed 4.81 tons in any 12 consecutive month period.

**Control Device Efficiency Restriction(s).****# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

(a) ID C112 shall capture the VOC emissions from the pastillation operation of Source ID P112 during production of BTMS-80 at a capture efficiency of no less than 90% (by weight).

(b) ID C112 shall capture all VOC emissions from the pastillator feed tank and reactor vessel associated with Source ID P112 during the production of BTMS-80.

(c) ID C112 shall control the VOC emissions ducted to it from Source ID P112 during the transfer of BTMS-80 from a reactor vessel and its subsequent pastillation at a control efficiency of no less than 99% (by weight).

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

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

The scrubber water flow rate of ID C112 associated with Source ID P112 shall be no less than 15 gallons per minute during the transfer of BTMS-80 from a reactor vessel and its subsequent pastillation in Source ID P112.

**II. TESTING REQUIREMENTS.**

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

**SECTION D. Source Level Requirements****III. MONITORING REQUIREMENTS.****# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

(a) The permittee shall install and maintain instrumentation to continuously and accurately measure the pressure differential across ID C112 associated with Source ID P112 and the actual pressure differential shall be displayed on a continuous basis during the transfer and subsequent pastillation of BTMS-80.

(b) The permittee shall install and maintain instrumentation to continuously and accurately measure the scrubber water flow rate of ID C112 associated with Source ID P112 and the actual scrubber water flow rate shall be displayed on a continuous basis during the transfer and subsequent pastillation of BTMS-80.

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

(a) The permittee shall keep records of the pressure differential across ID C112 associated with Source ID P112 at least once per BTMS-80 batch, and shall record the corrective actions taken if the pressure differential is outside the designed pressure range.

(b) The permittee shall keep records of the scrubber water flow rate of ID C112 associated with Source ID P112 on a continuous basis during the transfer of BTMS-80 and its subsequent pastillation in Source ID P112 to verify compliance with the scrubber water flow rate limitation, and shall record the corrective actions taken if the scrubber water flow rate is less than the limitation.

(c) The records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request.

**IV. RECORDKEEPING REQUIREMENTS.****# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall keep records of the supporting calculations on a monthly basis for all products processed in Source ID P112 to verify compliance with the HAPs emission limitation in any 12 consecutive month period.

(b) The permittee shall keep monthly records of the supporting calculations for the transfer of BTMS-80 from a reactor vessel and its subsequent pastillation in Source ID P112, including the exhaust of ID C112, to verify compliance with the VOC emission limitation of 2.56 tons in any 12 consecutive month period.

(c) The permittee shall keep records of the supporting calculations on a monthly basis for all products, except for BTMS-80, processed in Source ID P112 to verify compliance with the VOC emission limitation in any 12 consecutive month period

(d) The permittee shall keep records of the identity and quantity of materials produced in Source ID P112 on a monthly basis.

(e) The records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request.

**V. REPORTING REQUIREMENTS.****# 009 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) The permittee shall submit reports to the Department on a semi-annual basis that include the supporting calculations to verify compliance with HAPs emission limitation for all products processed in Source ID P112 in any 12 consecutive month period.

(b) The permittee shall submit reports to the Department on a semi-annual basis that include the supporting calculations to verify compliance with VOC emission limitation for the production of BTMS-80 processed in Source ID P112, including the

**SECTION D. Source Level Requirements**

exhaust of ID C112, in any 12 consecutive month period.

(c) The permittee shall submit reports to the Department on a semi-annual basis that include the supporting calculations to verify compliance with VOC emission limitation for all products processed in Source ID P112 in any 12 consecutive month period.

(d) The semi-annual reports shall be submitted to the Department no later than March 1 (for January 1 through December 31 of the previous year) and September 1 (for July 1 of the previous year through June 30 of the current year).

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

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

The air contaminant emissions from Source ID P112, during the transfer of BTMS-80 from a reactor vessel and its subsequent pastillation in Source ID P112 shall be controlled by ID C112. The permittee shall not transfer BTMS-80 from a reactor vessel and subsequently pastillate it in Source ID P112 without the simultaneous operation of ID C112.

**VII. ADDITIONAL REQUIREMENTS.****# 011 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) Source ID P112 is a pastillator operation used to cool and solidify heated organic liquids, which consists of two (2) pastillator units and a pastillator feed tank of 10,000 gallon capacity.

(b) ID C112 is the BTMS scrubber, which is a packed-bed scrubber with a design inlet gas volume of 3,600 SCFM. The scrubber utilizes water as solvent.

(c) A reactor vessel associated with Source ID P102 may be utilized during the transfer of BTMS-80 to Source ID P112. Any emissions from a reactor vessel used for the transfer of BTMS-80 shall be controlled by ID C112.

**# 012 [25 Pa. Code §129.57]****Storage tanks less than or equal to 40,000 gallons capacity containing VOCs**

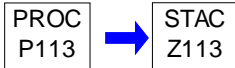
The pastillator feed tank is subject to 25 Pa. Code Section 129.57. The permittee shall comply with all the applicable requirements specified in 25 Pa. Code Section 129.57.

**SECTION D. Source Level Requirements**

Source ID: P113

Source Name: PRODUCT DRUMMING

Source Capacity/Throughput:

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

# 001 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

The emission of volatile organic compounds (VOCs) from Source ID P113 shall not exceed 0.5 ton in any 12 consecutive month period.

**Throughput Restriction(s).**

# 002 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

The loading of "alcohol-diluted" products shall not exceed 5,000,000 pounds in any 12 consecutive month period.

**II. TESTING REQUIREMENTS.**

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

**III. MONITORING REQUIREMENTS.**

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

**IV. RECORDKEEPING REQUIREMENTS.**

# 003 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

The permittee shall create and maintain records demonstrating compliance with the annual VOC emissions and "alcohol-diluted" products throughput limitations.

These records shall be maintained for a minimum of 5 years and be made available to the Department upon request.

**V. REPORTING REQUIREMENTS.**

# 004 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

For all liquid products loaded, the permittee shall submit reports to the Department on an annual basis that include the following information:

- (a) the total amount of "alcohol-diluted" products loaded in each 12 consecutive month period (in pounds),
- (b) the results of the VOC emission calculations for Source ID P113 for each 12 consecutive month period (in tons),

The annual reports shall be submitted to the Department no later than March 1 (for January 1 through December 31 of the previous year).

**SECTION D. Source Level Requirements****VI. WORK PRACTICE REQUIREMENTS.****# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall implement submerged/bottom loading techniques for products loaded in order to minimize liquid turbulence and transfer of vapor to air displaced during the loading process.

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

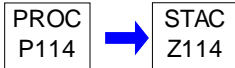
Source ID P113 is the facility-wide product loading operations consisting of the transfer of liquid products from processing vessels and storage tanks into drums and tank trucks.

**SECTION D. Source Level Requirements**

Source ID: P114

Source Name: METHYL CHLORIDE STORAGE SYSTEM

Source Capacity/Throughput:

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

# 001 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

The methyl chloride emissions from Source ID P114 shall not exceed 0.134 tons in any 12 consecutive month period.

**Throughput Restriction(s).**

# 002 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

Methyl chloride shall be the only material stored in the storage tank of Source ID P114.

**II. TESTING REQUIREMENTS.**

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

**III. MONITORING REQUIREMENTS.**

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

**IV. RECORDKEEPING REQUIREMENTS.**

# 003 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

The permittee shall keep records of the supporting calculations used to verify compliance with the 0.134 ton methyl chloride emission limitation in any 12 consecutive month period. Additionally, the permittee shall keep records of the date of each delivery to the storage tank of Source ID P114 as well as the quantity of methyl chloride contained in each delivery.

These records shall be retained for a minimum of 5 years and shall be made available to the Department upon request.

**V. REPORTING REQUIREMENTS.**

# 004 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

The permittee shall submit annual reports of the supporting calculations verifying compliance with the 0.134 ton methyl chloride emission limitation in any 12 consecutive month period. Additionally, the permittee shall submit the records of the date of each delivery to the storage tank of Source ID P114 as well as the quantity of methyl chloride contained in each delivery.

The annual reports shall be submitted to the Department no later than March 1 for the previous 12 consecutive month period.

**SECTION D. Source Level Requirements****VI. WORK PRACTICE REQUIREMENTS.****# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

When a delivery is made to the storage tank of Source ID P114, all vapors displaced from the tank shall be returned to the delivery truck via a vapor return line. At no time during the delivery, shall either the storage tank or delivery truck be vented to the atmosphere.

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

[Compliance with the requirement contained in this permit condition assures compliance with the provision in 25 Pa. Code Section 129.57]

The pressure relief valve associated with the storage tank of Source ID P114 shall have a minimum pressure setting of 190 psig. The rupture disk associated with the storage tank of Source ID P114 shall have a minimum pressure setting of 200 psig.

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

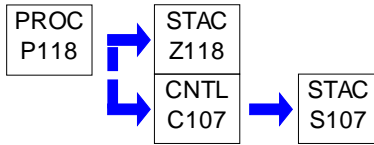
Source ID P114 consists of a 15,000 gallon methyl chloride storage tank (identified as TNK-08100) and associated bulk unloading station and distribution system.

**SECTION D. Source Level Requirements**

Source ID: P118

Source Name: PO STORAGE TANK &amp; DISTRIBUTION SYSTEM

Source Capacity/Throughput:

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

# 001 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

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

(a) The permittee shall not emit propylene oxide (PO) from Source ID P118 in excess of 0.156 ton in any 12 consecutive month period.

(b) The emission of propylene oxide from the exhaust of ID C107 associated with the Source ID P118 shall not equal or exceed 15 pounds in any 12 consecutive month period.

**Throughput Restriction(s).**

# 002 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

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

The permittee shall not unload more than twelve (12) PO containing railcars in any 12 consecutive month period.

**Control Device Efficiency Restriction(s).**

# 003 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

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

Control Device ID C107 shall destroy the PO emissions from railcar unloading and tank depressurization operations of Source ID P118 at a destruction efficiency of no less than 99.9% (by weight).

**II. TESTING REQUIREMENTS.**

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

**III. MONITORING REQUIREMENTS.**

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

**IV. RECORDKEEPING REQUIREMENTS.**

# 004 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

(a) The permittee shall keep records of the number of PO railcar unloadings associated with Source ID P118 on a monthly basis and shall verify compliance with the PO railcar unloading limitation in any 12 consecutive month period.

(b) The records shall be retained for a minimum of five (5) years and shall be made available to the Department upon

**SECTION D. Source Level Requirements**

request.

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

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

For each railcar unloading to Source ID P118, the following shall be recorded:

- (a) The tank level prior to railcar unloading,
- (b) The tank temperature prior to railcar unloading,
- (c) The tank pressure prior to railcar unloading,
- (d) The tank pressure after railcar unloading.

These records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request.

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

(a) The permittee shall keep records of the supporting calculations on a monthly basis for Source ID P118 to verify compliance with the PO emission limitations in any 12 consecutive month period.

(b) The records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request.

**V. REPORTING REQUIREMENTS.****# 007 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall submit annual reports of the following for Source ID P118:

- (a) The supporting calculations to verify compliance with PO emission limitations in any 12 consecutive month period.
- (b) The data verifying compliance with the annual propylene oxide rail car unloading limitation.
- (c) The annual reports shall be submitted to the Department no later than March 1 (for January 1 through December 31 of the previous year).

**VI. WORK PRACTICE REQUIREMENTS.****# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

(a) The air contaminant emissions from the railcar unloading process and tank depressurization operations associated with Source ID P118 shall be controlled by ID C107. The permittee shall only vent PO emissions from the unloading process or depressurize the tank associated with Source ID P118 with the simultaneous operation of ID C107.

(b) All PO railcars shall be first connected to the liquid transfer line and vapor balance line associated with Source ID P118 before PO unloading is initiated. Once unloading is completed, all transfer lines shall be flushed with nitrogen before they are disconnected and any PO from the transfer lines shall be captured in the tank, the railcar, or be directed to ID C107.

**# 009 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

**SECTION D. Source Level Requirements**

Source ID P118 shall not be vented except through the distribution system, the return line to the railcar, the return line to the truck, the relief valve, or ID C107.

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

The rupture disk and valve of each pressure relief device system of Source ID P118 shall be set to release at no less than 100 psig.

**# 011 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this permit condition is derived from a request by the permittee.]

(a) Exempt from this condition is equipment operated entirely under a vacuum, equipment that processes fluids that contain less than 10% by weight of VOCs, and equipment in service handling compounds with vapor pressures less than 0.044 psia at 68 degrees Fahrenheit.

(b) For the equipment included in Source ID P118 not exempted under subparagraph (a), the permittee shall:

(1) Install a second valve, blind flange, plug, cap, or other equivalent sealing system on open ended lines, except for pressure relief valves.

(2) Develop and initiate a leak detection program including liquid leaks for pumps, valves, compressors, vessels, and safety pressure relief valves, as well as a repair program for these components that cause a hydrocarbon detection instrument reading equal to or greater than 500 ppm. The leak detection and repair program shall include the following:

(i) A leak check during every calendar quarter of the components, by methods referenced in 25 Pa. Code § 139.14.

(ii) Attachment of an identification tag to the leaking component causing an instrument reading equal to or greater than 500 ppm. The identification tag shall be waterproof, readily visible, bear an identification number, the date on which the leak was detected and indicate if the component cannot be repaired until a process shutdown that will not occur within 15 days from the date of detection.

(iii) Repair and retest of a leaking component within 15 days or as soon as possible if a shutdown is required to make a repair.

(iv) A weekly visual check of pumps in light liquid service for indications of leaks.

(v) Check, by methods referenced in 25 Pa. Code § 139.14, a safety valve within 24 hours after it has vented to the atmosphere to assure that the safety relief valve has released.

(vi) The initiation and maintenance log of leaking components. The log shall contain, at a minimum, the total number of components checked, the total number of components found leaking, the location of the leaking component, the type of component, the tag identification number, the date on which the component was discovered to be leaking, date of repair, leak detection instrument reading after repairs, the components that cannot be repaired until a process shutdown that will not occur within 15 days from the date of detection and a record of the calibration of the leak detection monitoring instrument. The monitoring log shall be retained by the permittee for a minimum of 2 years after the date on which an entry was made. The log shall be made available to the Department upon request.

(c) The permittee may submit to the Department a list of components the inspection of which would involve a significant element of danger. The Department may exempt the components on the list from the requirements in this condition if the permittee can demonstrate to the satisfaction of the Department that a significant element of danger exists which cannot be reasonably eliminated, and that these exemptions will not result in a significant reduction of the VOC emissions control effectiveness.

**SECTION D. Source Level Requirements****VII. ADDITIONAL REQUIREMENTS.****# 012 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall minimize the number of connectors and valves associated with Source ID P118 in order to reduce the fugitive emissions associated with Source ID P118.

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

(a) Source ID P118 is a 33,000 gallon propylene oxide storage tank and associated distribution system, truck unloading system, and railcar unloading system.

(b) The distribution system shall consist of the distribution equipment and a three inch or less stainless steel line from the storage tank, which will then branch off into various one inch lines to individual propoxylation or ethoxylation reactors.

(c) The truck unloading system shall consist of liquid transfer and vapor balance lines, as well as a pump.

(d) The railcar unloading system shall consist of liquid transfer and vapor balance lines, as well as a connection to the scrubber and a pump.

(e) ID C107 is the railcar unloading scrubber, which is a counter-current sulfuric acid scrubber designed to handle gas volumes of 34 to 39 SCFM.

**SECTION D. Source Level Requirements**

Source ID: P119

Source Name: KOHLER EMERGENCY GENERATOR AND CATERPILLAR FIRE PUMPS

Source Capacity/Throughput:

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

# 001 [25 Pa. Code §123.13]

**Processes**

The permittee shall not emit particulate matter from any engine of Source ID P119 in excess of 0.04 grain per dry standard cubic foot, when the effluent gas volume from that engine is less than 150,000 dry standard cubic feet per minute.

# 002 [25 Pa. Code §123.21]

**General**

No person may permit the emission into the outdoor atmosphere of sulfur oxides, expressed as SO<sub>2</sub>, from Source ID P119 in a manner that the concentration of the sulfur oxides in the effluent gas exceeds 500 parts per million, by volume, dry basis.

# 003 [25 Pa. Code §127.441]

**Operating permit terms and conditions.**

The total combined NO<sub>x</sub> emissions from Source IDs P119 and P119A shall not equal or exceed 100 pounds per hour, 1000 pounds per day, 2.75 tons per ozone season, or 6.6 tons in any 12 consecutive month period.

**Operation Hours Restriction(s).**

# 004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6640]

**Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?**

The permittee shall operate the emergency engines included in Source ID P119 according to the requirements in paragraphs (1) through (4). Any operation of an engine included in Source ID P119 other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (1) through (4), is prohibited.

(1) There is no time limit on the use of Source ID P119 in emergency situations.

(2) The permittee may operate Source ID P119 for the purposes specified in paragraphs (3) and (4) for a combined maximum of 100 hours per calendar year per engine.

(3) Source ID P119 may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of Source ID P119 beyond 100 hours per calendar year.

(4) Each engine included in Source ID P119 may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year provided in paragraph (2). Except as provided in 40 CFR § 63.6640(f)(4)(ii), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

**SECTION D. Source Level Requirements****II. TESTING REQUIREMENTS.**

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

**III. MONITORING REQUIREMENTS.**

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

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

Records shall be kept that include the supporting calculations demonstrating compliance with the total combined NOx emission limitation for Source IDs P119 and P119A.

These records shall be kept for a minimum of five years and be made available to the Department upon request.

**# 006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6655]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What records must I keep?**

The permittee shall keep records pertaining to Source ID P119 as specified in 40 CFR 63.6655 and 40 CFR 63.6660.

**V. REPORTING REQUIREMENTS.****# 007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.13]****Subpart A--General Provisions****Addresses of State air pollution control agencies and EPA Regional Offices.**

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

Associate Director  
Air Protection Division (3AP20)  
U. S. EPA, Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029

and

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

**# 008 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6650]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What reports must I submit and when?**

The permittee shall submit reports pertaining to Source ID P119 as specified in 40 CFR 63.6650.

**SECTION D. Source Level Requirements****VI. WORK PRACTICE REQUIREMENTS.****# 009 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6603]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?**

The permittee shall comply with the following maintenance requirements for each engine of Source ID P119:

- a) Change oil and filter every 500 hours of operation or within 1 year + 30 days of the previous change, whichever comes first, unless the oil analyses detailed in 40 CFR 63.6625(i) indicates the oil does not need to be changed.
- b) Inspect the air cleaner every 1,000 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary.
- c) Inspect all hoses and belts every 500 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary.

**# 010 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6625]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What are my monitoring, installation, operation, and maintenance requirements?**

The permittee shall comply with the following monitoring, installation, operation, and maintenance requirements:

- (a) The permittee must operate and maintain Source ID P119 according to the manufacturer's emission-related written instructions or develop their own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engines in a manner consistent with good air pollution control practice for minimizing emissions.
- (b) Each engine of Source ID P119 must be equipped with a non-resettable hour meter.
- (c) The permittee shall minimize the time spent at idle during startup for each engine of Source ID P119 and minimize each engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

**VII. ADDITIONAL REQUIREMENTS.****# 011 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Source ID P119 consists of the following emergency stationary reciprocating internal combustion engines for which construction commenced prior to 2006:

- a) One (1) 415 horsepower #2 fuel oil-fired Kohler emergency generator.
- b) Two (2) 660 horsepower #2 fuel oil-fired Caterpillar model 3412 BDIT emergency fire pumps.

**# 012 [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 P119 is subject to 40 CFR Part 63 Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

**SECTION D. Source Level Requirements**

Source ID: P119A

Source Name: BLDG 717 EMERGENCY GENERATOR

Source Capacity/Throughput:

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.13]****Processes**

The permittee shall not emit into the outdoor atmosphere of particulate matter, from Source ID P119A, in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grains per dry standard cubic foot.

**# 002 [25 Pa. Code §123.21]****General**

No person may permit the emission into the outdoor atmosphere of sulfur oxides, expressed as SO<sub>2</sub>, from Source ID P119A in a manner that the concentration of the sulfur oxides in the effluent gas exceeds 500 parts per million, by volume, dry basis.

**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The total combined NO<sub>x</sub> emissions from Source IDs P119 and P119A shall not equal or exceed 100 pounds per hour, 1000 pounds per day, 2.75 tons per ozone season, or 6.6 tons in any 12 consecutive month period.

**# 004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4233]****Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines****What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?**

The air contaminant emissions from Source ID P119A shall not exceed the following limitations:

- (1) Nitrogen oxides plus Hydrocarbons (NO<sub>x</sub> + HC) - 10.0 grams per brake horsepower-hour.
- (2) Carbon monoxide - 387.0 grams per brake horsepower-hour.

**# 005 [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 inte**

The permittee shall submit notifications and reports pertaining to Source ID P119A as specified in 40 CFR § 60.4245.

**Operation Hours Restriction(s).****# 006 [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?**

The permittee shall operate Source ID P119A according to the requirements in paragraphs (1) through (4). Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (1) through (4), is prohibited.

- (1) There is no time limit on the use of Source ID P119A in emergency situations.
- (2) The permittee may operate Source ID P119A for the purposes specified in paragraphs (3) and (4) for a combined maximum of 100 hours per calendar year.

**SECTION D. Source Level Requirements**

(3) Source ID P119A may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of Source ID P119A beyond 100 hours per calendar year.

(4) Source ID P119A may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (2). Except as provided in 40 CFR 60.4243(d)(3)(i), the 50 hours per year for non-emergency situations cannot be used for peak shaving or nonemergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

**II. TESTING REQUIREMENTS.**

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

**III. MONITORING REQUIREMENTS.**

**# 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4237]  
Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines  
What are the monitoring requirements if I am an owner or operator of an emergency stationary SI internal combustion engine?**

Source ID P119A shall be equipped with a non-resettable hour meter.

**IV. RECORDKEEPING REQUIREMENTS.**

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

The permittee shall keep records pertaining to Source ID P119A as specified in 40 CFR § 60.4245.

**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.**

**# 009 [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?**

The permittee shall operate and maintain Source ID P119A according to the manufacturer's emission-related written instructions, and also keep records of conducted maintenance to demonstrate compliance.

**VII. ADDITIONAL REQUIREMENTS.**

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

Source ID P119A consists of one Olympian model G25LTA emergency generator set powered by a 38.4 bhp natural-gas fired internal combustion engine.

**SECTION D. Source Level Requirements**

**# 011 [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?**

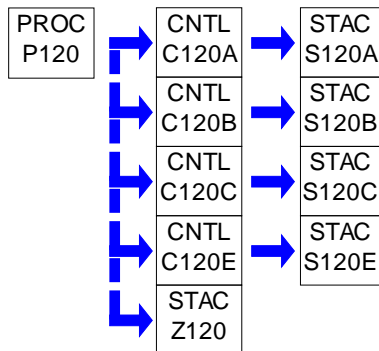
Source ID P119A is subject to 40 CFR Part 60 Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. Source ID P119A shall comply with all applicable requirements specified in 40 CFR Sections 60.4230 through 60.4248.

**SECTION D. Source Level Requirements**

Source ID: P120

Source Name: SUPER REFINED OIL 2 PROCESS

Source Capacity/Throughput:

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

No person may permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of the sulfur oxides, expressed as SO<sub>2</sub>, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

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

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 123.13, 127.1 and 127.12]

The permittee shall not emit particulate matter from the exhaust of the fabric collectors (Control Device IDs C120A, C120B, and C120C), associated with Source ID P120 in excess of 0.02 grain per dry standard cubic foot.

**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

Under no circumstances shall the amount of volatile organic compounds contained in the spent resin generated from any single batch of Source ID P120 be in excess of 20 pounds.

**# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

Under no circumstances shall the amount of volatile organic compounds contained in the wastewater discharge from the SRO operations of Source ID P120 exceed an average of 46 pounds per batch in any 12-month period. The permittee shall produce no more than 8 campaigns of SR Polysorbate 80 in any consecutive 12-month period.

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

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

The permittee shall not emit volatile organic compounds (VOCs) from the OP 6/7 vent condenser system (ID C120E) at a rate in excess of 2.02 lbs/hr.

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

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

**SECTION D. Source Level Requirements**

The permittee shall not emit volatile organic compounds (VOCs) from Source ID P120 in excess of 5.0 tons in any 12 consecutive month period.

**Operation Hours Restriction(s).****# 007 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The total time required for the operation of the Solvent Separations System (SSS) and nitrogen sparging of the column during the spent resin solvent removal process shall not exceed 30 hours per batch of product.

**Throughput Restriction(s).****# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The total amount of solvent added to each batch of product produced in Source ID P120 shall not exceed 8,700 kgs.

**II. TESTING REQUIREMENTS.****# 009 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) On a semiannual basis, the permittee shall accurately determine the amount (in pounds) of volatile organic compounds contained in the spent resin generated from a batch of Super Refined Oils processed in Source ID P120 using sampling and analytical procedures which have been approved by the Department.

(b) The permittee shall sample and analyze the spent resin from any batch of product manufactured during the first calendar quarter of each semiannual period, starting January 1st and July 1st of each year, unless no batch is manufactured in that first quarter, in which case the permittee shall sample and analyze resin from the first batch manufactured in the second quarter of that semiannual period.

(c) The volatile organic compounds content of spent resin from batches which are not sampled and analyzed shall be reported as 0.89 pounds per batch. The permittee shall perform an analysis of sampling data every five years for purposes of re-evaluating and verifying the validity of the presumptive value.

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

(a) Within 365 days of commencement of operation of Source ID P120, the permittee shall sample and analyze wastewater from at least four SRO campaigns in order to accurately determine the amount of volatile organic compounds, as ethanol, contained in the wastewater generated from operation of Source ID P120 using sampling and analytical procedures which have been approved by the Department.

(b) The sampling shall be performed on campaigns of product representing maximum routine operating conditions, in terms of solvent usage, or under such other conditions, within the capacity of the equipment, as may be requested by the Department.

(c) The Department may require additional sampling and analysis of the wastewater from Source ID P120 based on the results of the first four tests.

**# 011 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Within 5 years of the date of the most recent stack test conducted on Source ID P120 and Control Device ID C120, the permittee shall perform EPA reference method testing upon the vent condenser inlet and outlet while it is being used to control emissions from Source ID P120 to determine the volatile organic compounds emission rate and control efficiency of the condenser using reference method test procedures acceptable to the Department.

**SECTION D. Source Level Requirements****III. MONITORING REQUIREMENTS.****# 012 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The fabric collectors (IDs C120A, C120B, C120C) associated with Source ID P120 shall be equipped with instrumentation to accurately monitor the differential pressure across the collector on a continuous basis.

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

The OP 6/7 vent condenser system (ID C120E) of Source ID P120 shall be equipped with instrumentation that indicates whether the coolant pump is operational on a continuous basis.

**# 014 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The pre-cooler condensers incorporated in the vent condenser systems (ID C120E) of Source ID P120 shall be equipped with instrumentation to accurately monitor and record the coolant inlet temperature on a continuous basis.

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

The permittee shall keep records of the following for Source ID P120:

- (a) The total number of batches completed on a monthly basis
- (b) The total amount of solvent (in pounds) added to each individual batch
- (c) The total amount of solvent (in pounds) recovered from each individual batch
- (d) For batches in which the spent resin is required to be sampled to determine VOC content, the date and time the resin from each individual batch is removed from the oil processing column and the date and time a sample of that resin is taken for analysis
- (e) The results of all solvent composition determinations performed on the spent resin
- (f) The dates and times that the process (Source ID P120) is operating.
- (g) Coolant inlet temperature, including the date and time of measurements
- (h) The supporting calculations used to verify compliance with the annual volatile organic compound emission limitations emission limitation.
- (i) The supporting calculations used to verify compliance with the volatile organic compound emission limitation for the spent resin of each batch.
- (j) The supporting calculations verifying compliance with the volatile organic compound emission limitation for the wastewater produced from each batch.

These records shall be retained for a minimum of 5 years and shall be made available to the Department upon request.

**# 016 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall keep records of the supporting calculations used to verify compliance with the particulate matter emission limitations, for IDs C120A, C120B and C120C associated with Source ID P120.

These records shall be retained for a minimum of 5 years and shall be made available to the Department upon request.

**SECTION D. Source Level Requirements****V. REPORTING REQUIREMENTS.****# 017 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall submit the following records from Source ID P120 to the Department on a semiannual basis:

- (a) The total number of batches completed on a monthly basis.
- (b) The total amount of solvent (in pounds) added to each individual batch.
- (c) The total amount of solvent (in pounds) recovered from each individual batch.
- (d) For batches in which the spent resin is required to be sampled to determine VOC content, the date and time the resin from each individual batch is removed from the oil processing column and the date and time a sample of that resin is taken for analysis.
- (e) The results of all solvent composition determinations performed on the spent resin.
- (f) The dates and times that the Super Refined Oils process (Source ID P120) is operating.
- (g) The supporting calculations verifying compliance with the annual volatile organic compound emission limitation.
- (h) The supporting calculations verifying compliance with the volatile organic compound emission limitation for the spent resin of each batch.
- (i) The supporting calculations verifying compliance with the volatile organic compound emission limitation for the wastewater produced from each batch.

The semiannual reports shall be submitted to the Department no later than March 1 and September 1 for the previous semiannual period.

**VI. WORK PRACTICE REQUIREMENTS.****# 018 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

The permittee shall operate Source ID P120 such that the residual volatile organic compound content of the spent resin removed from the oil processing columns and the wastewater generated by the process shall be minimized.

**# 019 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

The temperature of the coolant used in the pre-cooler condensers incorporated in the respective vent condenser systems (ID C120E) of Source ID P120 shall be no greater than 40° F (as measured at the coolant inlet to the condenser) at any time any of the SRO process equipment which is ducted to the respective vent condenser system(s) is in use.

**# 020 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall keep on hand a sufficient quantity of spare fabric collector bags for the fabric collectors (IDs C120A, C120B and C120C) associated with Source ID P120 in order to be able to immediately replace any bags requiring replacement due to deterioration resulting from routine operation of Source ID P120 and associated fabric collectors.

**# 021 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

**SECTION D. Source Level Requirements**

All occurrences (associated with Source ID P120) of removing solvent from the drums or placing solvent into drums shall be carried out in a manner designed to minimize the evaporative loss or fugitive emission of solvent into the atmosphere to maximum extent practicable.

**VII. ADDITIONAL REQUIREMENTS.****# 022 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The specific process equipment, process steps and raw materials used in Source ID P120 shall not be changed from those described in the application and supplemental materials submitted for Plan Approvals 18-00011K without prior approval of the Department except as may be required to comply with the requirements of any condition contained herein.

**# 023 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

(a) Source ID P120 is a Super Refined Oils (SRO) process which includes the following pieces of equipment:

## OP-6/7 Oil Processing Columns

- HEX-252229 700 gallon Super Refined Oils Column
- HEX-252230 700 gallon Super Refined Oils Column

## OP-6/7 Processing/Storage Tanks

- TNK-252252 2,000 gallon Oil/Solvent Tank
- TNK-252204 2,000 gallon Oil/Solvent Feed Tank
- TNK-272258 3,100 gallon Oil/Solvent Surge Tank
- TNK-252254 3,100 gallon Spent Solvent Collection Tank
- TNK-272250 800 gallon Oil Finishing Day Tank
- TNK-272257 3,300 gallon Finished Product Blend Tank
- TNK-077800 20,000 gallon Ethanol Bulk Storage Tank

## OP-6/7 Oil/Solvent Separation System (SSS)

- HEX-272236, 75 ft2 1st Stage Evaporator
- HEX-272244, 126 ft2 1st Stage Condenser
- SEP-272207, 220 gallon 1st Stage Solvent Separator
- HEX-272245, 24 ft2 2nd Stage Evaporator
- HEX-272247, 30 ft2 2nd Stage Condenser
- SEP-272208, 25 gallon 2nd Stage Solvent Separator
- SEP-272209, 140 gallon Stripping Column
- HEX-272246, 126 ft2 Stripper Condenser
- TNK-272217, 50 gallon 1st Stage Solvent Condenser Receiver
- TNK-272218, 25 gallon 2nd Stage Solvent Condenser Receiver
- HEX-272238, 62 ft2 Product Cooler

## OP-6/7 Solvent Recovery System (SRS)

- SEP-282203, 56 gallon Vacuum Knockout Drum
- PMP-282242, 200 ACFM Solvent Recovery System Vacuum Pump
- TNK-292267, 58 gallon Recycle Solvent Storage Tank
- HEX-292249, OP-6/7 Vent Condenser (ID C120E)

## OP-6/7 Resin Handling and Conveyance System

- FIL-261225, 650 ACFM Fresh Resin Dump Station Filter (ID C120A)
- CON-261200, 3,040 lbs/hr Fresh Resin Conveyance System
- FIL-261223, 1,676 SCFM Fresh Resin Fabric Filter (ID C120B)
- CON-257200, 3,040 lbs/hr Spent Resin Conveyance System
- FIL-257224, 2,900 SCFM Spent Resin Fabric Filter (ID C120C)

(b) The air contaminant emissions from the SRO process (Source ID P120) shall be controlled by the following:

**SECTION D. Source Level Requirements**

(1) The resin bag dump station of Source ID P120 shall be controlled by a Young Industries, Inc. FBD 30-6, or equivalent, fabric collector (ID C120A).

(2) The fresh resin conveying system of Source ID P120 shall be controlled by a Young Industries, Inc. VC24-12-34, or equivalent, fabric collector (ID C120B).

(3) The spent resin conveying system of Source ID P120 shall be controlled by a Young Industries, Inc. VC48-16-40, or equivalent, fabric collector (ID C120C).

(4) The Ethanol Bulk Storage Tank shall be maintained under nitrogen pressure. Vapors displaced while filling shall be routed to the ethanol tankwagon (truckcar) for vapor balancing.

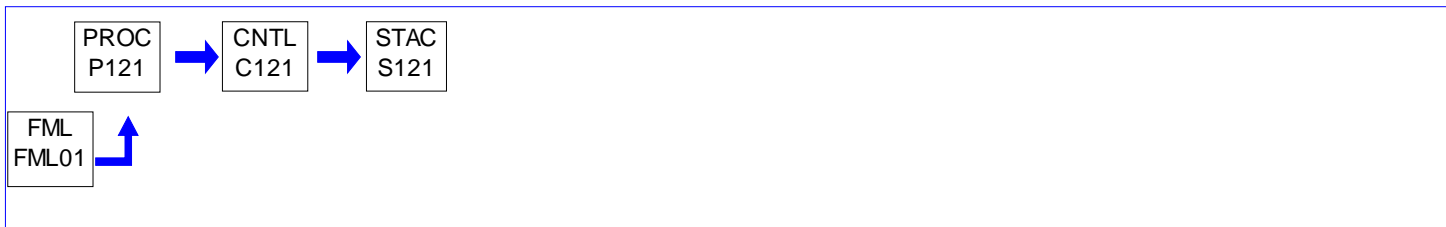
(5) The air contaminant emissions from the OP-6/7 Oil Processing Columns, Processing/Storage Tanks, Solvent Separation System, and Solvent Recovery System of Source ID P120 shall be controlled by the OP-6/7 Vent Condenser System (ID C120E).

**SECTION D. Source Level Requirements**

Source ID: P121

Source Name: COMBINED HEAT AND POWER UNIT

Source Capacity/Throughput:

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.13]****Processes**

No person may permit the emission from Source ID P121 into the outdoor atmosphere of particulate matter in excess of 0.04 grains per dry standard cubic foot.

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

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the total emissions from Source P121 shall not exceed any of the following limitations:

- i) 6.4 tons of nitrogen oxides in any 12 consecutive month period;
- ii) 0.6 tons of carbon monoxide in any 12 consecutive month period;
- iii) 0.2 ton of sulfur dioxide in any 12 consecutive month period;
- iv) 1.3 tons of total particulate matter (condensable and filterable), including particulate matter having an aerodynamic diameter equal to or less than 2.5 micrometers (PM-2.5) in any 12 consecutive month period;
- v) 2.6 tons of volatile organic compounds in any 12 consecutive month period; and
- vi) 0.2 ton of total hazardous air pollutant in any 12 consecutive month period.

**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provision specified in 40 CFR Section 60.4320]

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the permittee shall not permit the emission into the outdoor atmosphere of nitrogen oxides from Source ID P121 in a manner that the concentration of nitrogen oxides in the exhaust gas exceeds 30 ppm @ 15% oxygen.

**# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the permittee shall not permit the emission into the outdoor atmosphere of carbon monoxide from Source ID P121 in a manner that the concentration of carbon monoxide in the exhaust gas exceeds 3.6 ppm @ 15% oxygen.

**# 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4330]****Subpart KKKK - Standards of Performance for Stationary Combustion Turbines****What emission limits must I meet for sulfur dioxide (SO<sub>2</sub>)?**

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provision specified in 25 Pa. Code §123.21]

The permittee shall not burn in Source ID P121 any fuel which contains total potential sulfur emissions in excess of 0.060 lb SO<sub>2</sub>/MMBtu heat input.

**SECTION D. Source Level Requirements****Fuel Restriction(s).****# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

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

The permittee shall only fire Source ID P121 on pipeline-quality natural gas.

**II. TESTING REQUIREMENTS.****# 007 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provisions in 40 CFR Section 60.4340]

(a) Within 180 days of commencement of operation of Source ID P121, the permittee shall perform EPA reference method testing on Source P121 to determine the nitrogen oxides and carbon monoxide emissions.

- (i) All stack tests shall be performed while the source is operating at peak load.
- (ii) All stack tests for nitrogen oxide emission shall be performed in accordance with 40 CFR Section 60.4400.
- (iii) All stack tests shall be performed using methods and procedures which are acceptable to the Department.

(b) The permittee shall perform subsequent EPA reference method testing on Source ID P121 for nitrogen oxide and carbon monoxide emissions on an approximately biennial basis (no more than 26 calendar months following the previous performance test).

**III. MONITORING REQUIREMENTS.****# 008 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The oxidation catalyst associated with Source ID P121 shall be equipped with instrumentation to accurately monitor the catalyst inlet temperature and differential pressure on a continuous basis.

**IV. RECORDKEEPING REQUIREMENTS.****# 009 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this streamlined permit condition is also derived from 40 CFR § 60.4365(a)]

The permittee shall create and maintain accurate and comprehensive records of the following information for Source ID P121:

- (a) A copy of the stack test reports for any testing performed on Source ID P121.
- (b) A current, valid purchase contract, tariff sheet or transportation contract for the natural gas fired in Source ID P121, specifying that the maximum total sulfur content is 20 grains of sulfur per 100 standard cubic feet or less.
- (c) The amount of air contaminant emissions from Source ID P121, on a monthly basis, in order to verify compliance with the nitrogen oxide, carbon monoxide, volatile organic compounds, particulate matter, and hazardous air pollutant emissions limitations in any 12 consecutive month period.
- (d) The amount of fuel used in Source ID P121 on a monthly basis.
- (e) The number of hours Source ID P121 operated on a monthly basis.

These records shall be retained for a minimum of 5 years and be made available to the Department upon request.

**SECTION D. Source Level Requirements****V. REPORTING REQUIREMENTS.****# 010 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall submit the following information for Source P121 on a semi-annual basis; the monthly amount of emissions of nitrogen oxides, carbon monoxide, sulfur oxides, and particulate matter (including particulate matter with an aerodynamic diameter less than 2.5 microns), volatile organic compounds and hazardous air pollutant with the supporting calculations/documentation including total emissions (tons per year) based on the 12-month rolling total for each month in the reporting period.

Semi-annual reports shall be submitted to the Department by March 1 (for the July 1 through December 31 reporting period of the preceding year) and September 1 (for the January 1 through June 30 reporting period of the concurrent year).

**# 011 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this streamlined permit condition is also derived from 40 CFR §60.4375]

The permittee shall submit all requests, reports, applications, submittals and other communications required by 40 CFR Sections 60.4300 - 60.4420 to both the Department of Environmental Protection and the Environmental Protection Agency, including a written report of the results of each performance test, which shall be submitted before the close of business on the 60th day following the completion of the performance test. The Environmental Protection Agency copies may be sent to:

Permits and Technical Assessment Branch (3AP11)  
Air Protection Division  
USEPA Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029

**VI. WORK PRACTICE REQUIREMENTS.****# 012 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

[Additional authority for this streamlined permit condition is also derived from 40 CFR §60.4333]

Pursuant to the Best Available Technology requirements of 25 Pa. Code §§ 127.1 and 127.12, the permittee shall operate and maintain Source ID P121, the oxidation catalyst (ID C121), and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.

**VII. ADDITIONAL REQUIREMENTS.****# 013 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Source ID P121 consists of a natural gas-fired, combined heat and power combustion process which includes a natural gas-fired Capstone model xS-Hx4-Bx0x-Axx0 microturbine assembly, consisting of five turbines with a nominal capacity to produce 200 kW of electricity each (1MW total) and a maximum combined heat input at peak load equal to 11.4 MMBtu/hr.

The exhaust gas from the combustion turbines is ducted into a heat recovery steam generation unit that can produce up to 17,000 lb/hr of steam. The heat recovery steam generation unit includes a natural gas-fired duct burner rated at a maximum of 14.3 MMBtu/hr of heat input.

The carbon monoxide (CO) emissions from the exhaust of the heat recovery steam generator shall be controlled by an oxidation catalyst (ID C121).

**# 014 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

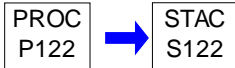
Source ID P121 is subject to Subpart KKKK of the Federal Standards of Performance for New Stationary Sources, 40 CFR Sections 60.4300 - 60.4420. The permittee shall comply with all applicable requirements specified in 40 CFR Sections 60.4300 - 60.4420.

**SECTION D. Source Level Requirements**

Source ID: P122

Source Name: RESEARCH AND DEVELOPMENT SOURCES

Source Capacity/Throughput:

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

[Additional authority for this permit condition is also derived from 25 Pa. Code Section 127.14(a)(8)]

The total combined annual emission rate for all equipment included in Source ID P122 shall not exceed the following limits:

- (a) 20.0 tons per year of CO;
- (b) 0.12 tons per year of lead;
- (c) 3.0 tons per year of PM10;
- (d) 8.0 tons per year of SO<sub>2</sub>;
- (e) 8.0 tons per year of VOCs;
- (f) 10.0 tons per year of NO<sub>x</sub>;
- (g) 1.0 tons per year of a single HAP;
- (h) 2.5 tons per year of a combination of HAPs.

**II. TESTING REQUIREMENTS.**

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

**III. MONITORING REQUIREMENTS.**

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

**IV. RECORDKEEPING REQUIREMENTS.****# 002 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall create and maintain records of total annual emissions of air contaminants from the equipment included in Source ID P122. These records shall be maintained for a minimum of five years and be 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.**

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

**SECTION D. Source Level Requirements****VII. ADDITIONAL REQUIREMENTS.****# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Source ID P122 is composed of air emissions sources at the facility which are used for Research and Development purposes and includes the following equipment:

- (a) R-6, a 172 gallon capacity McCulloch pilot reactor vessel (nominally identified as a 100 gallon vessel) equipped with a 24.7 square foot process condenser.
- (b) R-12, a 172 gallon capacity Mueller model PC06403 pilot reactor vessel (nominally identified as a 100 gallon vessel) equipped with a 24.7 square foot process condenser.
- (c) Two (2) Bench Scale R&D Super Refined Oils Columns which were exempted from plan approval via RFDs on March 4, 2002 and April 27, 2020.



**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 insignificant with regards to air contaminant emission and have been determined, by the Department, to be exempt from permit requirements. However, this determination does not exempt the sources from compliance with the conditions of a determination of exemption from plan approval (if exempted via RFD) and all applicable air quality regulations specified in 25 Pa. Code Chapters 121-145:

- (1) 67 VOC containing storage tanks less than 2,000 gallons each.
- (2) Equipment Cleaning.
- (3) Wastewater Treatment Operations.
- (4) Miscellaneous Equipment Components (pumps, valves, connectors, etc.) not involved in polyether polyol production.
- (5) Wiped Film Evaporator (WFE) Unit.
- (6) Filter Press Cleaning Operations.
- (7) DMAPA Packed Tower Scrubber. Exempted via RFD on June 20, 2001.
- (8) Carboxylic Acid Conveying System. Exempted via RFD on December 2, 2008.
- (9) Bag Dump Station. Exempted via RFD on October 19, 2011.
- (10) One (1) 400 gpm and two (2) 1,920 gpm cooling towers.
- (11) Seed film coating product manufacturing process, exempted via RFDs on July 24, 2017 and July 2, 2019, which includes the following equipment:
  - Two (2) 500-gallon mixing vessels
  - One (1) high speed dissolver
  - Dust collection system
  - One (1) bulk conveying system and associated dust collection system



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

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