COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY PROGRAM

PLAN APPROVAL

Issue Date: February 12, 2021 Effective Date: February 12, 2021

Expiration Date: February 12, 2024

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

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

Plan Approval No. 23-0119J

Federal Tax Id - Plant Code: 23-3102655-3

Owner Information

Name: SUNOCO PARTNERS MKT & TERM LP
Mailing Address: 100 GREEN ST
MARCUS HOOK, PA 19061-4800

Plant Information

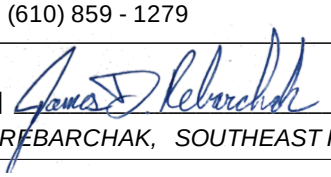
Plant: SPMT / MARCUS HOOK IND COMPLEX
Location: 23 Delaware County 23825 Marcus Hook Borough
SIC Code: 4226 Trans. & Utilities - Special Warehousing And Storage, Nec

Responsible Official

Name: EDWARD G HUMAN
Title: SENIOR DIR. - MH OPER.
Phone: (610) 859 - 1912

Plan Approval Contact Person

Name: KEVIN SMITH
Title: ENV COMPLIANCE SPECIALIST
Phone: (610) 859 - 1279

[Signature] 

JAMES D. REBARCHAK, SOUTHEAST REGION AIR PROGRAM MANAGER

Plan Approval Description

(a) This plan approval is for the installation and temporary operation of the following sources and equipment:

(1) Two new 600,000-bbl refrigerated ethane storage tanks (Source IDs 124–125).

(2) One new amine treatment system to remove excess carbon dioxide (CO2) from ethane feedstock prior to fractionation.

(3) One new dehydration train system to remove water from ethane feedstock prior to fractionation.

(4) Two new refrigeration systems, each consisting of a closed-loop propane system followed by an open-loop ethane system, for the cooling of dry ethane.

(5) Two new fractionation towers (demethanizers) and associated equipment for the removal of methane from dry ethane.

(6) Two new wet surface air cooling (WSAC) systems (Source ID 141), one associated with each new refrigeration system, to process cooling water for the refrigeration systems.

(7) One new elevated, air-assisted Project Phoenix Cold Flare (Source ID C04) equipped with high and low-pressure flare tips for flaring refrigerated streams that do not contain water.

(8) All associated piping and components for the refrigerated ethane storage.

(b) In addition, this plan approval accounts for emissions from the following:

(1) Incremental flows from the amine treatment system to an existing West Warm Flare (Source ID C03) permitted under Title V Operating Permit No. 23-00119.

(2) The increased use of steam from three existing auxiliary boilers (Source IDs 031 and 033–034) permitted under Title V Operating Permit No. 23-00119, by the following equipment:

(i) The amine stripper tower reboiler of the amine treatment system.

(ii) The dehydration regeneration vaporizer of the dehydration train system.

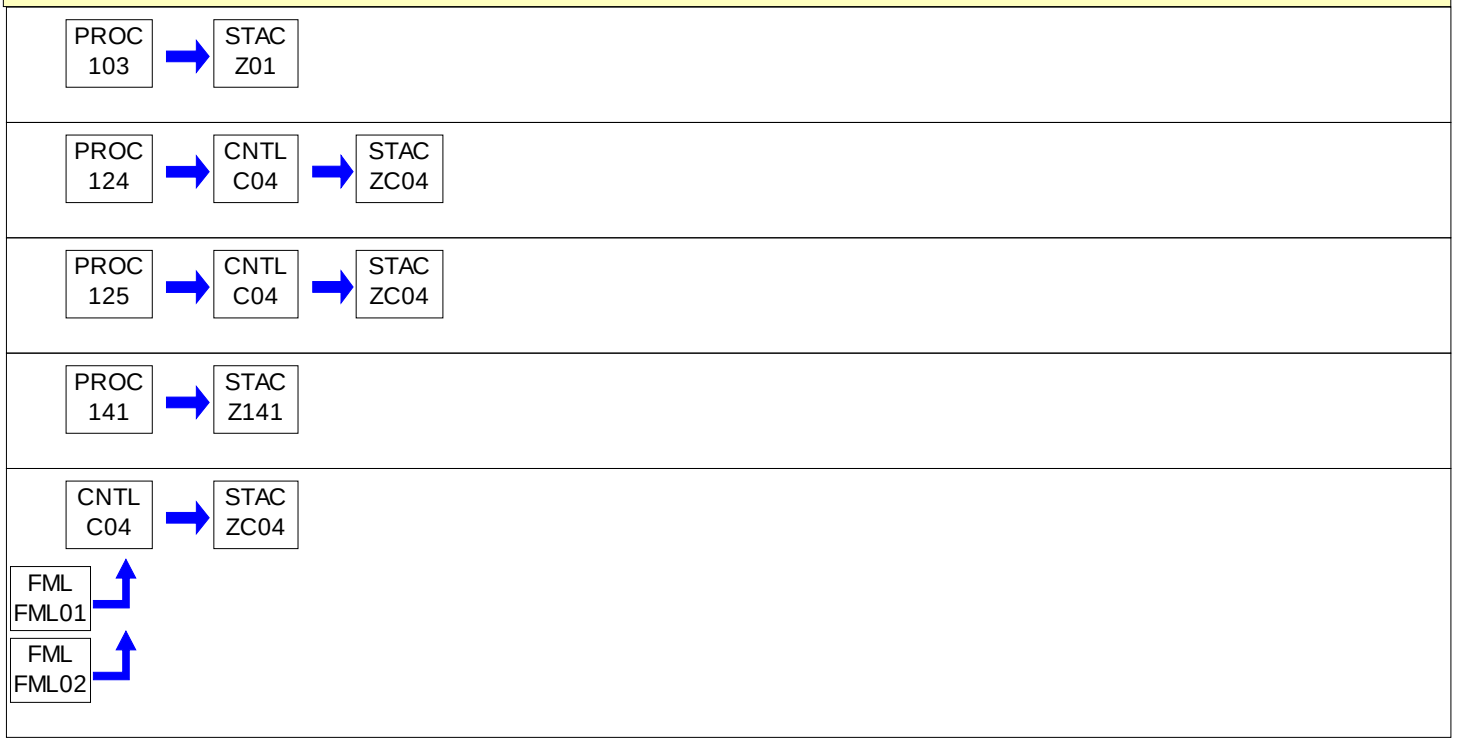
SECTION A. Table of Contents

SECTION A. Table of Contents

SECTION A. Plan Approval Inventory List

Source ID	Source Name	Capacity/Throughput	Fuel/Material
103	NSPS SUBPART VVA FUGITIVE EQUIPMENT LEAKS	N/A	
124	REFRIGERATED ETHANE STORAGE TANK (600,000 BBL)	N/A	ETHANE
125	REFRIGERATED ETHANE STORAGE TANK (600,000 BBL)	N/A	ETHANE
141	WSAC SYSTEMS (2)	N/A	WATER
C04	PROJECT PHOENIX COLD FLARE	9.452 MCF/HR	PILOT/PURGE/SWEEP GAS
FML01	NATURAL GAS		
FML02	PROCESS GAS		
Z01	NSPS SUBPART VVA FUGITIVE EQUIPMENT		
Z141	WSAC SYSTEMS FUGITIVE EMISSIONS		
ZC04	PROJECT PHOENIX COLD FLARE FUGITIVE EMISSIONS		

PERMIT MAPS



SECTION B. General Plan Approval Requirements

#001 [25 Pa. Code § 121.1]

Definitions

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

#002 [25 Pa. Code § 127.12b (a) (b)]

Future Adoption of Requirements

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

#003 [25 Pa. Code § 127.12b]

Plan Approval Temporary Operation

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

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

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

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

(d) The permittee may request an extension of the 180-day shakedown period if further evaluation of the air contamination aspects of the source(s) is necessary. The request for an extension shall be submitted, in writing, to the Department at least 15 days prior to the end of the initial 180-day shakedown period and shall provide a description of the compliance status of the source, a detailed schedule for establishing compliance, and the reasons compliance has not been established. This temporary operation period will be valid for a limited time and may be extended for additional limited periods, each not to exceed 180 days.

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

#004 [25 Pa. Code § 127.12(a) (10)]

Content of Applications

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

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

Public Records and Confidential Information

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

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

SECTION B. General Plan Approval Requirements

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

#006 [25 Pa. Code § 127.12b]

Plan Approval terms and conditions.

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

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

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

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

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

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

#007 [25 Pa. Code § 127.32]

Transfer of Plan Approvals

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

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

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

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

Inspection and Entry

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

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

SECTION B. General Plan Approval Requirements

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

#009 [25 Pa. Code 127.13a]

Plan Approval Changes for Cause

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

(a) The permittee constructs or operates the source subject to the plan approval in violation of the act, the Clean Air Act, the regulations promulgated under the act or the Clean Air Act, a plan approval or permit or in a manner that causes air pollution.

(b) The permittee fails to properly or adequately maintain or repair an air pollution control device or equipment attached to or otherwise made a part of the source.

(c) The permittee fails to submit a report required by this plan approval.

(d) The Environmental Protection Agency determines that this plan approval is not in compliance with the Clean Air Act or the regulations thereunder.

#010 [25 Pa. Code §§ 121.9 & 127.216]

Circumvention

(a) The permittee, or any other person, may not circumvent the new source review requirements of 25 Pa. Code Chapter 127, Subchapter E by causing or allowing a pattern of ownership or development, including the phasing, staging, delaying or engaging in incremental construction, over a geographic area of a facility which, except for the pattern of ownership or development, would otherwise require a permit or submission of a plan approval application.

(b) No person may permit the use of a device, stack height which exceeds good engineering practice stack height, dispersion technique or other technique which, without resulting in reduction of the total amount of air contaminants emitted, conceals or dilutes an emission of air contaminants which would otherwise be in violation of this plan approval, the Air Pollution Control Act or the regulations promulgated thereunder, except that with prior approval of the Department, the device or technique may be used for control of malodors.

#011 [25 Pa. Code § 127.12c]

Submissions

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

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

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

Risk Management

(a) If required by Section 112(r) of the Clean Air Act, the permittee shall develop and implement an accidental release program consistent with requirements of the Clean Air Act, 40 CFR Part 68 (relating to chemical accident prevention provisions) and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act (P.L. 106-40).

(b) The permittee shall prepare and implement a Risk Management Plan (RMP) which meets the requirements of Section 112(r) of the Clean Air Act, 40 CFR Part 68 and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act when a regulated substance listed in 40 CFR § 68.130 is present in a process in more than the listed threshold quantity at the facility. The permittee shall submit the RMP to the Environmental Protection Agency according to the following schedule and requirements:

(1) The permittee shall submit the first RMP to a central point specified by the Environmental Protection Agency no later than the latest of the following:

SECTION B. General Plan Approval Requirements

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

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

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

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

#013 [25 Pa. Code § 127.25]

Compliance Requirement

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

SECTION C. Site Level Plan Approval Requirements

I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

 # 001 [25 Pa. Code §127.208]

ERC use and transfer requirements.

[Additional authority for this plan approval condition is derived from 25 Pa. Code § 127.206.]

(a) In accordance with 25 Pa. Code § 127.206(d), the permittee shall obtain and surrender 49.93 tons of volatile organic compound (VOC) ERCs, determined as follows, for use at this facility:

[38.41 tons (emissions increase for Project Phoenix)] × [offset ratio of 1.3:1 (as indicated in 25 Pa. Code § 127.210(a))].

(b) The VOC ERCs to be surrendered to the Department, as required in (a), above, shall be properly generated, certified by the Department, and processed through the registry no later than the date approved by the Department for commencement of operation of the sources and equipment under this plan approval.

VIII. COMPLIANCE CERTIFICATION.

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

IX. COMPLIANCE SCHEDULE.

No compliance milestones exist.

SECTION D. Source Level Plan Approval Requirements

Source ID: 103 Source Name: NSPS SUBPART VVA FUGITIVE EQUIPMENT LEAKS

Source Capacity/Throughput: N/A

PROC 103 → STAC Z01

I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

 # 001 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.485a]

Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006

Test methods and procedures.

(a) In conducting the performance tests required in 40 CFR § 60.8, the permittee shall use the test methods in appendix A of this part or other methods and procedures as specified below, except as provided in 40 CFR § 60.8(b).

(b) The permittee shall determine compliance with the standards in 40 CFR §§ 60.482-1a through 60.482-11a and 60.483a, as follows:

(1) EPA Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in EPA Method 21. The following calibration gases shall be used:

(i) zero air (less than 10 ppm of hydrocarbon in air); and

(ii) a mixture of methane or n-hexane and air at a concentration no more than 2,000 ppm greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 ppm above the concentration specified as a leak, and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 ppm. If only one scale on an instrument will be used during monitoring, the permittee need not calibrate the scales that will not be used during that day's monitoring.

(2) a calibration drift assessment shall be performed, at a minimum, at the end of each monitoring day using the same calibration gas(es) that were used to calibrate the instrument before use. Follow the procedures specified in EPA Method 21, Section 10.1, except do not adjust the meter readout to correspond to the calibration gas value. Record the instrument reading for each scale used as specified in 40 CFR § 60.486a(e)(7). Calculate the average algebraic difference between the three meter readings and the most recent calibration value. Divide this algebraic difference by the initial calibration value and multiply by 100 to express the calibration drift as a percentage. If any calibration drift assessment shows a negative drift of more than 10% from the initial calibration value, then all equipment monitored since the last calibration with instrument readings below the appropriate leak definition and above the leak definition multiplied by (100 minus the percent of negative drift/divided by 100) must be re-monitored. If any calibration drift assessment shows a positive drift of more than 10% from the initial calibration value, then, at the permittee's discretion, all equipment since the last calibration with instrument readings above the appropriate leak definition and below the leak definition multiplied by (100 plus the percent of positive drift/divided by 100) may be re-monitored.

(c) The permittee shall determine compliance with the no-detectable-emission standards in 40 CFR §§ 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows:

(1) the requirements of (b), above, shall apply; and

(2) EPA Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

(d) The permittee shall test each piece of equipment unless it is demonstrated that a process unit is not in VOC service (i.e., that the VOC content would never be reasonably expected to exceed 10%, by weight). For purposes of this demonstration, the following methods and procedures shall be used:

SECTION D. Source Level Plan Approval Requirements

(1) procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment;
(2) organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and
(3) engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, (d)(1)–(2), above, shall be used to resolve the disagreement.

(e) The permittee shall demonstrate that a piece of equipment is in light liquid service by showing that all the following conditions apply:
(1) the vapor pressure of one or more of the organic components is greater than 0.3 kPa at 20 °C (1.2 in. H2O at 68 °F). Standard reference texts or ASTM D2879-83, 96, or 97 shall be used to determine the vapor pressures;
(2) the total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 °C (1.2 in. H2O at 68 °F) is equal to or greater than 20%, by weight; and
(3) the fluid is a liquid at operating conditions.

(f) Samples used in conjunction with paragraphs (d)–(e) and (g) of this condition shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare.
(g) The permittee shall determine compliance with the standards of flares as follows:
(1) EPA Method 22 shall be used to determine visible emissions;
(2) a thermocouple or any other equivalent device shall be used to monitor the presence of a pilot flame in the flare;
(3) the maximum permitted velocity for air assisted flares shall be computed using the following equation:
Vmax = K1 + K2HT
Where:
Vmax = Maximum permitted velocity, m/sec (ft/sec);
HT = Net heating value of the gas being combusted, MJ/scm (Btu/scf);
K1 = 8.706 m/sec = 28.56 ft/sec; and
K2 = 0.7084 m4/(MJ-sec) = 0.087 ft4/(Btu-sec).
(4) the net heating value (HT) of the gas being combusted in a flare shall be computed using the equation found in 40 CFR § 60.485(g)(4);
(5) EPA Method 18 or ASTM D6420-99 (2004) (where the target compound(s) are those listed in Section 1.1 of ASTM D6420-99, and the target concentration is between 150 ppbv and 100 ppmv) and ASTM D2504-67, 77, or 88 (Reapproved 1993) shall be used to determine the concentration of sample component “i”;
(6) ASTM D2382-76 or 88 or D4809-95 shall be used to determine the net heat of combustion of component “i” if published values are not available or cannot be calculated; and
(7) EPA Method 2, 2A, 2C, or 2D, as appropriate, shall be used to determine the actual exit velocity of a flare. If needed, the unobstructed (free) cross-sectional area of the flare tip shall be used.

(h) The permittee shall determine compliance with 40 CFR §§ 60.483-1a or §60.483-2a, as follows:
(1) the percent of valves leaking shall be determined using the following equation:
%VL = (VL / VT) * 100
Where:
%VL = Percent leaking valves;
VL = Number of valves found leaking; and
VT = The sum of the total number of valves monitored.
(2) the total number of valves monitored shall include difficult-to-monitor and unsafe-to-monitor valves only during the monitoring period in which those valves are monitored;
(3) the number of valves leaking shall include valves for which repair has been delayed;
(4) any new valve that is not monitored within 30 days of being placed in service shall be included in the number of valves leaking and the total number of valves monitored for the monitoring period in which the valve is placed in service;
(5) if the process unit has been subdivided in accordance with 40 CFR § 60.482-7a(c)(1)(ii), the sum of valves found leaking during a monitoring period includes all subgroups; and
(6) the total number of valves monitored does not include a valve monitored to verify repair.

SECTION D. Source Level Plan Approval Requirements

III. MONITORING REQUIREMENTS.

 # 002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall use dataloggers and/or other electronic data collection devices for all data collection during all LDAR monitoring. The permittee shall ensure that the responsible personnel transfer, on a daily basis, electronic data from electronic datalogging devices to the electronic database. For each monitoring event in which an electronic data collection device is used, the collected monitoring data shall include an accurate time and date stamp, the monitoring reading, and identifying information on the operator and the instrument used to perform the monitoring.

The permittee may use paper logs where necessary or more feasible (e.g., small rounds, remonitoring, or when dataloggers are not available or broken), and shall record, at a minimum, the identification of the technician undertaking the monitoring, the date, daily start and end times for the monitoring conducted, each monitoring reading, and the identification of the monitoring equipment. The permittee shall transfer any manually recorded monitoring data to the electronic database within 7 days of monitoring.

 # 003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

(a) To ensure proper installation, the permittee shall monitor each new pump and valve in gaseous or light liquid service within 30 days of the date of commencement of operation, as required to be provided to the Department pursuant to Condition # 003(a), Section B, of this plan approval.

(b) Any new pump or valve that is not monitored within the timeframe specified in (a), above, shall be included as a leaking pump or valve for the monitoring period in which the component was placed into service.

 # 004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.482-11a]

Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006

Standards: Connectors in gas/vapor service and in light liquid service.

(a) The permittee shall initially monitor all connectors in the process unit for leaks by no later than 12 months after initial startup. If all connectors in the process unit have been monitored for leaks prior to the compliance date, no initial monitoring is required provided either no process changes have been made since the monitoring or the permittee can determine that the results of the monitoring, with or without adjustments, reliably demonstrate compliance despite process changes. If required to monitor because of a process change, the permittee is required to monitor only those connectors involved in the process change.

(b) Except as allowed in 40 CFR §§ 60.482-1a(c), 60.482-10a, or as specified in (e), below, the permittee shall monitor all connectors in gas and vapor and light liquid service, as specified in (a) and (b)(3) of this condition.

(1) The connectors shall be monitored to detect leaks by the method specified in 40 CFR § 60.485a(b) and, as applicable, 40 CFR § 60.485a(c).

(2) If an instrument reading greater than or equal to 500 ppm is measured, a leak is detected.

(3) The permittee shall perform monitoring, subsequent to the initial monitoring required in (a), above, as specified in (b)(3)(i)–(iii) of this condition, and shall comply with the requirements of (b)(3)(iv)–(v), below. The required period in which monitoring must be conducted shall be determined from (b)(3)(i)–(iii), below, using the monitoring results from the preceding monitoring period. The percent leaking connectors shall be calculated as specified in (c), below.

(i) if the percent leaking connectors in the process unit was greater than or equal to 0.5%, then monitor within 12 months (1 year);

(ii) if the percent leaking connectors in the process unit was greater than or equal to 0.25% but less than 0.5%, then monitor within 4 years. The permittee may comply with the requirements of (b)(3) by monitoring at least 40% of the connectors within 2 years of the start of the monitoring period, provided all connectors have been monitored by the end of the 4-year monitoring period.

(iii) if the percent leaking connectors in the process unit was less than 0.25 percent, then monitor as provided in (b)(3)(iii)(A), below and either (b)(3)(iii)(B) or (b)(3)(iii)(C), below, as appropriate.

(A) the permittee shall monitor at least 50% of the connectors within 4 years of the start of the monitoring period.

(B) if the percent of leaking connectors calculated from the monitoring results in (b)(3)(iii)(A), above is greater than or equal to 0.35% of the monitored connectors, the permittee shall monitor as soon as practical, but within the next 6 months, all connectors that have not yet been monitored during the monitoring period. At the conclusion of monitoring, a new

SECTION D. Source Level Plan Approval Requirements

monitoring period shall be started, pursuant to (b)(3), above, based on the percent of leaking connectors within the total monitored connectors.

(C) if the percent of leaking connectors calculated from the monitoring results in (b)(3)(iii)(A), above, is less than 0.35% of the monitored connectors, the permittee shall monitor all connectors that have not yet been monitored within 8 years of the start of the monitoring period.

(iv) If during the monitoring conducted in (b)(3)(i)–(iii), above, a connector is found to be leaking, it shall be re-monitored once within 90 days after repair to confirm that it is not leaking.

(v) The permittee shall keep a record of the start date and end date of each monitoring period under this condition for each process unit.

(c) For use in determining the monitoring frequency, as specified in (a) and (b)(3), above, the percent leaking connectors as used in (a) and (b)(3), above shall be calculated by using the following equation:

%CL = CL/ Ct* 100

Where:

%CL = Percent of leaking connectors as determined through periodic monitoring required in (a) and (b)(3)(i)–(iii), above;

CL = Number of connectors measured at 500 ppm or greater, by the method specified in 40 CFR § 60.485a(b); and

Ct = Total number of monitored connectors in the process unit or affected facility.

(d) When a leak is detected, pursuant to (a)–(b), above, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR § 60.482-9a. A first attempt at repair as defined in this subpart shall be made no later than 5 calendar days after the leak is detected.

(e) Any connector that is designated, as described in (e)(1)–(2), below, as an unsafe-to-monitor connector is exempt from the requirements of (a)–(b), above if:

(1) the permittee demonstrates that the connector is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with (a)–(b), above; and

(2) the permittee has a written plan that requires monitoring of the connector as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in (d), above, if a leak is detected.

(f) Inaccessible, ceramic, or ceramic-lined connectors.

(1) Any connector that is inaccessible or that is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of (a)–(b), above, from the leak repair requirements of (d), above, and from the recordkeeping and reporting requirements of 40 CFR §§ 63.1038–63.1039. An inaccessible connector is one that meets any of the provisions specified in (f)(1)(i)–(vi), below, as applicable:

(i) buried;

(ii) insulated in a manner that prevents access to the connector by a monitor probe;

(iii) obstructed by equipment or piping that prevents access to the connector by a monitor probe;

(iv) unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground;

(v) inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold; or

(vi) not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment.

(2) If any inaccessible, ceramic, or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the visual, audible, olfactory, or other indications of a leak to the atmosphere shall be eliminated as soon as practical.

(g) Except for instrumentation systems and inaccessible, ceramic, or ceramic-lined connectors meeting the provisions of (f), above, the permittee shall identify the connectors subject to the requirements of this condition. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated.

SECTION D. Source Level Plan Approval Requirements

 # 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.482-8a]

Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006

Standards: Pumps, valves, and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service.

(a) If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at valves in heavy liquid service, the permittee shall follow either of the following procedures:
(1) the permittee shall monitor the equipment within 5 days by the method specified in 40 CFR § 60.485a(b) and shall comply with (b)–(d), below; or
(2) the permittee shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection.
(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
(c) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR § 60.482-9a, with the first attempt at repair made no later than 5 calendar days after each leak is detected.
(d) First attempts at repair include, but are not limited to, the best practices described in 40 CFR §§ 60.482-2a(c)(2) and 60.482-7a(e).

IV. RECORDKEEPING REQUIREMENTS.

 # 006 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Records of the first attempt at repair shall be maintained on site.

 # 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.486a]

Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006

Recordkeeping requirements.

(a) The permittee shall record the following information for each monitoring event required by 40 CFR §§ 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a:
(1) monitoring instrument identification;
(2) operator identification;
(3) equipment identification;
(4) date of monitoring; and
(5) instrument reading.

(b) When each leak is detected as specified in 40 CFR §§ 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following requirements apply:
(1) a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment;
(2) the identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR § 60.482-7a(c) and no leak has been detected during those 2 months;
(3) the identification on a connector may be removed after it has been monitored as specified in 40 CFR § 60.482-11a(b)(3)(iv) and no leak has been detected during that monitoring; and
(4) the identification on equipment, except on a valve or connector, may be removed after it has been repaired.

(c) When each leak is detected as specified in 40 CFR §§ 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following information shall be recorded in a log and shall be kept for a minimum of 5 years in a readily accessible location:
(1) the instrument and operator identification numbers and the equipment identification number, except when indications of liquids dripping from a pump are designated as a leak;
(2) the date the leak was detected and the dates of each attempt to repair the leak;
(3) repair methods applied in each attempt to repair the leak;
(4) maximum instrument reading measured by EPA Method 21 at the time the leak is successfully repaired or determined to be nonrepairable, except when a pump is repaired by eliminating indications of liquids dripping;

SECTION D. Source Level Plan Approval Requirements

(5) "repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak;
(6) the signature of the employee (or other designee of the permittee) whose decision it was that repair could not be effected without a process shutdown;
(7) the expected date of successful repair of the leak if a leak is not repaired within 15 days;
(8) dates of process unit shutdowns that occur while the equipment is unrepaired; and
(9) the date of successful repair of the leak.

(d) The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR § 60.482-10a shall be recorded and kept in a readily accessible location:
(1) detailed schematics, design specifications, and piping and instrumentation diagrams;
(2) the dates and descriptions of any changes in the design specifications;
(3) a description of the parameter or parameters monitored, as required in 40 CFR § 60.482-10a(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring;
(4) periods when the closed vent systems and control devices required in 40 CFR §§ 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a are not operated as designed, including periods when a flare pilot light does not have a flame; and
(5) dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR §§ 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a.

(e) The following information pertaining to all equipment subject to the requirements in 40 CFR §§ 60.482-1a to 60.482-11a shall be recorded in a log that is kept in a readily accessible location:
(1) a list of identification numbers for equipment subject to the requirements of this subpart;
(2) a list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR §§ 60.482-2a(e), 60.482-3a(i), and 60.482-7a(f). The designation of equipment as subject to these requirements shall be signed by the permittee. Alternatively, the permittee may establish a mechanism with PADEP that satisfies this requirement;
(3) a list of equipment identification numbers for pressure relief devices required to comply with 40 CFR § 60.482-4a;
(4) the dates of each compliance test as required in 40 CFR §§ 60.482-2a(e), 60.482-3a(i), 60.482-4a, and 60.482-7a(f);
(i) the background level measured during each compliance test.
(ii) the maximum instrument reading measured at the equipment during each compliance test.
(5) a list of identification numbers for equipment that the permittee designates as operating in VOC service less than 300 hrs/yr in accordance with 40 CFR § 60.482-1a(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hrs/yr;
(6) the date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service;
(7) records of the information specified in (i)–(vi), below, for monitoring instrument calibrations conducted according to Sections 8.1.2 and 10 of EPA Method 21 and 40 CFR § 60.485a(b);
(i) Date of calibration and initials of operator performing the calibration.
(ii) Calibration gas cylinder identification, certification date, and certified concentration.
(iii) Instrument scale(s) used.
(iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value in accordance with Section 10.1 of EPA Method 21.
(v) Results of each calibration drift assessment required by 40 CFR § 60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value).
(vi) If the permittee makes their own calibration gas, a description of the procedure used.

(8) the connector monitoring schedule for each process unit as specified in 40 CFR § 60.482-11a(b)(3)(v);
(9) records of each release from a pressure relief device subject to 40 CFR § 60.482-4a; and
(10) if applicable, a list of identification numbers for equipment in vacuum service.

(f) The following information pertaining to all valves subject to the requirements of 40 CFR § 60.482-7a(g)–(h), all pumps subject to the requirements of 40 CFR § 60.482-2a(g), and all connectors subject to the requirements of 40 CFR § 60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location:
(1) a list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connector stating why the valve, pump, or connector is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector; and
(2) a list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve

SECTION D. Source Level Plan Approval Requirements

stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve.

(g) The following information shall be recorded for valves complying with 40 CFR § 60.483-2a:
(1) a schedule of monitoring; and
(2) the percent of valves found leaking during each monitoring period.

(h) The following information shall be recorded in a log that is kept in a readily accessible location:
(1) design criterion required in 40 CFR §§ 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and
(2) any changes to this criterion and the reasons for the changes.

(i) The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR § 60.480a(d):
(1) an analysis demonstrating the design capacity of the affected facility;
(2) a statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and
(3) an analysis demonstrating that equipment is not in VOC service.

(j) Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location.

(k) The provisions of 40 CFR § 60.7(b) and (d) do not apply to affected facilities subject to 40 CFR Part 60, Subpart VVa.

V. REPORTING REQUIREMENTS.

 # 008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.487a]

Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006

Reporting requirements.

(a) The permittee shall submit semiannual reports to the Administrator and the Department beginning 6 months after the initial startup date.
(b) The initial semiannual report shall include the following information:
(1) process unit identification;
(2) number of valves subject to the requirements of 40 CFR § 60.482-7a, excluding those valves designated for no detectable emissions under the provisions of 40 CFR § 60.482-7a(f);
(3) If applicable, number of pumps subject to the requirements of 40 CFR § 60.482-2a, excluding those pumps designated for no detectable emissions under the provisions of 40 CFR § 60.482-2a(e) and those pumps complying with 40 CFR § 60.482-2a(f);
(4) if appliable, number of compressors subject to the requirements of 40 CFR § 60.482-3a, excluding those compressors designated for no detectable emissions under the provisions of 40 CFR § 60.482-3a(i) and those compressors complying with 40 CFR § 60.482-3a(h); and
(5) number of connectors subject to the requirements of 40 CFR § 60.482-11a;

(c) All semiannual reports shall include the following information, summarized from the information in 40 CFR § 60.486a:
(1) process unit identification;
(2) for each month during the semiannual reporting period:
(i) Number of valves for which leaks were detected as described in 40 CFR § 60.482-7a(b) or §60.483-2a;
(ii) Number of valves for which leaks were not repaired as required in 40 CFR § 60.482-7a(d)(1);
(iii) Number of pumps for which leaks were detected as described in 40 CFR § 60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii);
(iv) Number of pumps for which leaks were not repaired as required in 40 CFR § 60.482-2a(c)(1) and (d)(6);
(v) Number of compressors for which leaks were detected as described in 40 CFR § 60.482-3a(f);
(vi) Number of compressors for which leaks were not repaired as required in 40 CFR § 60.482-3a(g)(1);
(vii) Number of connectors for which leaks were detected as described in 40 CFR § 60.482-11a(b);
(viii) Number of connectors for which leaks were not repaired as required in 40 CFR § 60.482-11a(d); and
(ix) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically

SECTION D. Source Level Plan Approval Requirements

infeasible.

(3) dates of process unit shutdowns which occurred within the semiannual reporting period; and
(4) revisions to items reported according to (b), above, if changes have occurred since the initial report or subsequent revisions to the initial report.

(d) The permittee electing to comply with the provisions of 40 CFR §§60.483-1a or 60.483-2a shall notify the Administrator and the Department of the alternative standard selected at least 90 days before implementing either of the provisions.

(e) The permittee shall report the results of all performance tests in accordance with 40 CFR § 60.8. The provisions of 40 CFR § 60.8(d) do not apply to affected facilities subject to the provisions of 40 CFR Part 60, Subpart VVa, except that the permittee must notify the Administrator and the Department of the schedule for the initial performance tests at least 30 days before the initial performance tests.
(f) The requirements of (a)–(c), above, remain in force until and unless EPA, in delegating enforcement authority to a state under section 111(c) of the CAA, approves reporting requirements or an alternative means of compliance surveillance adopted by such state. In that event, affected sources within the state will be relieved of the obligation to comply with the requirements of (a)–(c), above, provided that they comply with the requirements established by the state.

VI. WORK PRACTICE REQUIREMENTS.

 # 009 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

To the extent that good engineering practice will permit, valves and piping connections shall be so located to be accessible for leak-checking. Non-accessible valves, as approved by the Department, shall be identified, with the approved list maintained on site.

 # 010 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

All piping connections shall be welded or flanged, except that threaded connections are permissible on piping smaller than 2 inches in diameter. Gas or hydraulic testing of the piping connections at no less than operating pressure shall be performed prior to installation or returning the components to service, or they shall be monitored for leaks using an approved gas analyzer within eight (8) hours of the components being returned to service. Adjustments shall be made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve. Except during sampling, the second valve shall be closed. If the removal of a component for repair or replacement results in an open-ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for twenty-four (24) hours. If the repair or replacement is not completed within twenty-four (24) hours, a cap, blind flange, plug, or second valve must be installed.

 # 011 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Damaged or leaking valves or connectors found to be emitting compounds by visual inspection to be leaking (e.g., dripping process fluids) shall be date-tagged with a weatherproof and readily visible identification number and date the leak was found. The tag shall remain in place until the component is replaced or repaired.

Damaged or leaking pump, compressor, and agitator seals found to be emitting compounds by visual inspection to be leaking (e.g., dripping process fluids) shall be date-tagged with a weatherproof and readily visible identification number and date the leak was found. The tag shall remain in place until the component is replaced or repaired.

 # 012 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

When a leak is detected, it shall be repaired as soon as practical, but no later than 15 days after it is detected. A first attempt of repair shall be made no later than 5 calendar days after the leak is detected. Following the repair or replacement, the part shall be monitored for leakage and the results recorded.

SECTION D. Source Level Plan Approval Requirements

If the repair of a component would require a unit shutdown that would create more emissions than the repair would eliminate, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. A listing of all components that qualify for delay of repair shall be maintained on a "delay of repair" list. The cumulative daily emissions from all components on the delay of repair list shall be estimated using EPA's Protocol for Equipment Leak Emission Estimates, EPA-453/R-95-107 and using the emission factors in Table 2-1, or other Department and EPA approved equivalent. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds the total emissions from a unit shutdown, the Department shall be notified and may require early unit shutdown, or other appropriate action based on the number and severity of tagged leaks awaiting shutdown.

 # 013 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

All piping, valves, relief valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes.

 # 014 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

All underground piping shall contain no buried valves, and all buried connectors shall be welded.

 # 015 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this plan approval condition is derived from 40 CFR § 60.482-2a and 25 Pa. Code Chapter 122 and § 127.205(1).]

As applicable.

(a) Each pump in light liquid service shall be:
(1) monitored monthly to detect leaks by the methods specified in 40 CFR § 60.485a(b), except as provided in 40 CFR § 60.482-1a(c) and (f), and in (d)–(f), below. A pump that begins operation in light liquid service after the initial startup date for the process unit must be monitored for the first time within 30 days after the end of its startup period, except for a pump that replaces a leaking pump and except as provided in 40 CFR § 60.482-1a(c), and in (d)–(f), below.
(2) checked by visual inspection each calendar week for indications of liquids dripping from the pump seal, except as provided in 40 CFR § 60.482-1a(f).

(b) Leaks.
(1) A leak is defined as 500 parts per million (ppm) or greater for all pumps.
(2) If there are indications of liquids dripping from the pump seal, the permittee shall follow the procedure specified in either (b)(2)(i) or (ii), below. This requirement does not apply to a pump that was monitored after a previous weekly inspection and the instrument reading was less than the concentration specified in (b)(1)(i) or (ii), above, whichever is applicable:
(i) monitor the pump within 5 days as specified in 40 CFR § 60.485a(b). A leak is detected if the instrument reading measured during monitoring indicates a leak as specified in (b)(1)(i) or (ii), above. The leak shall be repaired using the procedures in (c), below; or
(ii) designate the visual indications of liquids dripping as a leak, and repair the leak using either the procedures in (c), below, or by eliminating the visual indications of liquids dripping.

(c) Leak Detection.
(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR § 60.482-9a.
(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the practices described in (c)(2)(i)–(ii), below.
(i) tightening the packing gland nuts; and
(ii) ensuring that the seal flush is operating at design pressure and temperature.

(d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the

SECTION D. Source Level Plan Approval Requirements

requirements of (a), above, provided the requirements specified in (d)(1)–(6), below, are met:

(1) Each dual mechanical seal system is:

(i) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or

(ii) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of 40 CFR § 60.482-10a; or

(iii) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.

(2) The barrier fluid system is in heavy liquid service or is not in VOC service.

(3) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

(4) Each pump is checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals. If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the permittee shall follow the procedure specified in either (d)(4)(i) or (ii), below, prior to the next required inspection.

(i) Monitor the pump within 5 days as specified in 40 CFR § 60.485a(b) to determine if there is a leak of VOC in the barrier fluid. If an instrument reading of 500 ppm or greater is measured, a leak is detected; or

(ii) Designate the visual indications of liquids dripping as a leak.

(5)(i) Each sensor as described in (d)(3), above, is checked daily or is equipped with an audible alarm.

(ii) The permittee determines, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(iii) If the sensor indicates failure of the seal system, the barrier fluid system, or both, based on the criterion established in (d)(5)(ii), above, a leak is detected.

(6) When a leak is detected pursuant to (d)(4)(i), above, it shall be repaired as specified in (c), above.

(i) A leak detected pursuant to (d)(5)(iii), above, shall be repaired within 15 days of detection by eliminating the conditions that activated the sensor.

(ii) A designated leak pursuant to (d)(4)(ii), above, shall be repaired within 15 days of detection by eliminating visual indications of liquids dripping.

(e) Any pump that is designated, as described in 40 CFR § 60.486a(e)(1)–(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of (a) and (c)–(d), above, if the pump:

(1) has no externally actuated shaft penetrating the pump housing;

(2) is demonstrated to be operating with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in 40 CFR § 60.485a(c); and

(3) Is tested for compliance with (e)(2), above, initially upon designation, annually, and at other times requested by the Administrator or the Department.

(f) If any pump is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a process or to a fuel gas system or to a control device that complies with the requirements of 40 CFR § 60.482-10a, it is exempt from (a)–(e), above.

(g) Any pump that is designated, as described in 40 CFR § 60.486a(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements in (a) and (d)(4)–(6), above, if:

(1) the permittee demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with (a), above; and

(2) the permittee has a written plan that requires monitoring of the pump as frequently as practicable during safe-to monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in (c), above, if a leak is detected.

[Compliance with this streamlined plan approval condition assures compliance with the leak definition for pumps of 2,000 ppm indicated in 40 C.F.R. § 60.482-2a(b)(1)(ii).]

 # 016 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this plan approval condition is derived from 40 CFR § 60.482-7a and 25 Pa. Code Chapter 122 and § 127.205(1).]

SECTION D. Source Level Plan Approval Requirements

(a) Each valve shall be monitored monthly to detect leaks by the methods specified in 40 CFR § 60.485a(b) and shall comply with (b)–(d), below, except as provided in (e)–(g), below, and 40 CFR §§ 60.482-1a(c) and (f), 60.483-1a, and 60.483-2a;
(1) A valve that begins operation in gas/vapor service or light liquid service after the initial startup date for the process unit must be monitored according to (a) or (a)(2), of this condition, except for a valve that replaces a leaking valve and except as provided in (e)–(f), below, and 40 CFR §§ 60.482-1a(c), 60.483-1a, and 60.483-2a.
(2) The valve must be monitored for the first time within 30 days after the end of its startup period to ensure proper installation. If the existing valves in the process unit are monitored in accordance with 40 CFR §§ 60.483-1a or 60.483-2a, count the new valve as leaking when calculating the percentage of valves leaking as described in 40 CFR § 60.483-2a(b)(5). If less than 0.5% of the valves are leaking for that process unit, the valve must be monitored for the first time during the next scheduled monitoring event for existing valves in the process unit or within 90 days, whichever comes first.

(b) If an instrument reading of 500 ppm or greater is measured, a leak is detected.
(1) Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. As an alternative to monitoring all of the valves in the first month of a quarter, the permittee may elect to subdivide the process unit into two or three subgroups of valves and monitor each subgroup in a different month during the quarter, provided each subgroup is monitored every 3 months. The permittee must keep records of the valves assigned to each subgroup.
(2) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.

(c) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR § 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
(d) First attempts at repair include, but are not limited to, the following best practices where practicable:
(1) tightening of bonnet bolts;
(2) replacement of bonnet bolts;
(3) tightening of packing gland nuts; and
(4) injection of lubricant into lubricated packing.

(e) Any valve that is designated, as described in 40 CFR § 60.486a(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of (a), above, if the valve:
(1) has no external actuating mechanism in contact with the process fluid;
(2) is operated with emissions less than 500 ppm above background as determined by the method specified in 40 CFR § 60.485a(c); and
(3) is tested for compliance with (e)(2), above, initially upon designation, annually, and at other times requested by the Administrator.

(f) Any valve that is designated, as described in 40 CFR § 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of (a), above, if:
(1) the permittee demonstrates that the valve is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with the requirements of (a), above; and
(2) the permittee adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.

(g) Any valve that is designated, as described in 40 CFR § 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of (a), above, if:
(1) the permittee demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters (7 feet) above a support surface;
(2) the process unit within which the valve is located has less than 3.0% of its total number of valves designated as difficult-to-monitor; and
(3) the permittee follows a written plan that requires monitoring of the valve at least once per calendar year.

[Compliance with this streamlined plan approval condition assures compliance with the leak percentage for valves required for a reduction in monitoring frequency of 2.0% indicated in 40 C.F.R. § 60.482-7a(a)(2)(ii).]

SECTION D. Source Level Plan Approval Requirements

 # 017 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this plan approval condition is derived from 40 CFR §§ 60.483-1a(b)–(d) and 60.483-2a(b)(1)–(6), and 25 Pa. Code Chapter 122 and § 127.205(1).]

(a) The permittee shall not have a facility with a leak percentage greater than 2.0%, determined as described in 40 CFR § 60.485a(h).

(b) The following requirements shall be met to comply with an allowable percentage of valves leaking:
(1) a performance test as specified in (c), below, shall be conducted initially upon issuance of this plan approval, annually, and at other times as requested by the Administrator or the Department.
(3) if a valve leak is detected, it shall be repaired in accordance with 40 CFR § 60.482-7a(d)–(e).

(c) Performance tests shall be conducted in the following manner:
(1) all valves in gas/vapor and light liquid service within the affected facility shall be monitored within 1 week by the methods specified in 40 CFR § 60.485a(b);
(2) if an instrument reading of 500 ppm or greater is measured, a leak is detected; and
(3) the leak percentage shall be determined by dividing the number of valves for which leaks are detected by the number of valves in gas/vapor and light liquid service within the facility.

(d) The permittee shall comply initially with the requirements for valves in gas/vapor service and valves in light liquid service, as described in 40 CFR § 60.482-7a.
(1) After two consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than 0.5%, the permittee may begin to skip one of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.
(2) After five consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than 0.5%, the permittee may begin to skip three of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.
(3) If the percentage of valves leaking is greater than 0.5%, the leak detection periods shall revert to quarterly (until compliance with (d)(1) or (2), above, is reestablished).
(4) The percentage of valves leaking shall be determined as described in 40 CFR § 60.485a(h).
(5) The permittee must keep a record of the percent of valves found leaking during each leak detection period.
(6) A valve that begins operation in gas/vapor service or light liquid service after the initial startup date for a process unit following one of the alternative standards in this section must be monitored in accordance with 40 CFR § 60.482-7a(a)(2)(i) or (ii) before the provisions of this condition can be applied to that valve.

 # 018 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.482-10a]

Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006

Standards: Closed vent systems and control devices.

As applicable.

WORK PRACTICE STANDARD
(a) The vapor recovery system shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95% or greater.

MONITOR
(b) The permittee shall monitor the control devices to ensure that they are operated and maintained in conformance with their designs.
(c) Except as provided in (f)–(h), below, the permittee shall inspect the vapor collection system or closed vent system as follows:
(1) conduct an initial inspection according to the procedures in 40 CFR § 60.485a(b); and
(2) conduct annual visual inspections for visible, audible, or olfactory indications of leaks.
(3) if the vapor collection system or closed vent system is constructed of ductwork, the permittee shall:
(i) conduct an initial inspection according to the procedures in 40 CFR § 60.485a(b); and
(ii) conduct annual inspections according to the procedures in 40 CFR § 60.485a(b).

SECTION D. Source Level Plan Approval Requirements

WORK PRACTICE STANDARD
(d) Leaks, as indicated by an instrument reading greater than 500 ppmv above background or by visual inspections, shall be repaired as soon as practicable except as provided in (e), below.
(1) a first attempt at repair shall be made no later than 5 calendar days after the leak is detected.
(2) repairs shall be completed no later than 15 calendar days after the leak is detected.

(e) Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the permittee determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.
(f) If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of (c)(1)–(2), above.
(g) Any parts of the closed vent system that are designated, as described in (g)(1), below, as unsafe to inspect are exempt from the inspection requirements of (c)(1)–(2), above, if they comply with the requirements in (g)(1)–(2), below:
(1) the permittee determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with (c)(1)–(2), above; and
(2) the permittee has a written plan that requires inspection of the equipment as frequently as practicable during safe-to inspect times.

(h) Any parts of the vapor recovery system that are designated, as described in (h)(2), below, as difficult to inspect are exempt from the inspection requirements of (c)(1)–(2), above, if they comply with the requirements specified in (h)(1)–(3), below:
(1) the permittee determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters (7 feet) above a support surface; and
(2) the process unit within which the vapor recovery system is located becomes an affected facility through 40 CFR §§ 60.14 or 60.15, or the permittee designates less than 3.0% of the total number of vapor recovery system equipment as difficult to inspect; and
(3) the permittee has a written plan that requires inspection of the equipment at least once every 5 years. A closed vent system is exempt from inspection if it is operated under a vacuum.

RECORDS
(i) The permittee shall record the following:
(1) identification of all parts of the vapor recovery system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment;
(2) identification of all parts of the vapor recovery system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment;
(3) for each inspection during which a leak is detected, a record of the information specified in 40 CFR § 60.486a(c);
(4) for each inspection conducted in accordance with 40 CFR § 60.485a(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and
(5) for each visual inspection conducted in accordance with (c)(2), above, during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

(j) The vapor recovery system used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

 # 019 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.482-1a]

Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006

Standards: General.

(a) The permittee shall demonstrate compliance with the requirements of 40 CFR §§ 60.482-1a through 60.482-10a, as applicable, or 40 CFR § 60.480a(e) for all equipment within 180 days of initial startup.
(b) Compliance with 40 CFR §§ 60.482-1a to 60.482-10a will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in 40 CFR § 60.485a.
(c) The permittee may request a determination of equivalence of a means of emission limitation to the requirements of 40 CFR §§ 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, and 60.482-10a as provided in §60.484a. If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of 40

SECTION D. Source Level Plan Approval Requirements

CFR §§ 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, or 60.482-10a, the permittee shall comply with the requirements of that determination.
(d) Equipment that the permittee designates as being in VOC service less than 300 hrs/yr is excluded from the requirements of 40 CFR §§ 60.482-2a through 60.482-11a, if it is identified as required in 40 CFR § 60.486a(e)(6) and it meets any of the conditions specified in (d)(1)–(3), below:
(1) the equipment is in VOC service only during startup and shutdown, excluding startup and shutdown between batches of the same campaign for a batch process;
(2) the equipment is in VOC service only during process malfunctions or other emergencies; or
(3) the equipment is backup equipment that is in VOC service only when the primary equipment is out of service.

(e) If a dedicated batch process unit operates less than 365 days during a year, the permittee may monitor to detect leaks from pumps, valves, and open-ended valves or lines at the frequency specified as follows instead of monitoring as specified in 40 CFR §§ 60.482-2a, 60.482-7a, and 60.483.2a:
(1) If used less than 25% of the hours of the year, then the equivalent monitoring frequency shall be as follows:
(i) Monthly - performed quarterly
(ii) Quarterly - performed annually
(iii) Semiannally - performed annually

(2) If used 25% or more, but less than 50% of the hours of the year, then the equivalent monitoring frequency shall be as follows:
(i) Monthly - performed quarterly
(ii) Quarterly - performed semi-annually
(iii) Semiannally - performed annually

(3) If used 50% or more, but less than 75% of the hours of the year, then the equivalent monitoring frequency shall be as follows:
(i) Monthly - performed bimonthly
(ii) Quarterly - performed three quarters
(iii) Semiannally - performed semiannually

(4) If used 75% or more, but less than 100% of the hours of the year, then the equivalent monitoring frequency shall be as follows:
(i) Monthly - performed monthly
(ii) Quarterly - performed quarterly
(iii) Semiannally - performed semiannually

(f) Pumps and valves that are shared among two or more batch process units that are subject to 40 CFR 60, Subpart VVa, may be monitored at the frequencies specified in (e), above, provided the operating time of all such process units is considered.
(g) The monitoring frequencies specified in (e), above, are not requirements for monitoring at specific intervals and can be adjusted to accommodate process operations. The permittee may monitor at any time during the specified monitoring period (e.g., month, quarter, year), provided the monitoring is conducted at a reasonable interval after completion of the last monitoring campaign. Reasonable intervals are defined in (g)(1)–(4), below:
(1) when monitoring is conducted quarterly, monitoring events must be separated by at least 30 calendar days;
(2) when monitoring is conducted semiannually (i.e., once every 2 quarters), monitoring events must be separated by at least 60 calendar days;
(3) when monitoring is conducted in three quarters per year, monitoring events must be separated by at least 90 calendar days; and
(4) when monitoring is conducted annually, monitoring events must be separated by at least 120 calendar days.

(h) If the storage vessel is shared with multiple process units, the process unit with the greatest annual amount of stored materials (predominant use) is the process unit the storage vessel is assigned to. If the storage vessel is shared equally among process units, and one of the process units has equipment subject to 40 CFR Part 60, Subpart VVa, the storage vessel is assigned to that process unit. If the storage vessel is shared equally among process units, none of which have equipment subject to 40 CFR Part 60, Subpart VVa, the storage vessel is assigned to any process unit subject to 40 CFR Part 60, Subpart VVa. If the predominant use of the storage vessel varies from year to year, then the permittee must

SECTION D. Source Level Plan Approval Requirements

estimate the predominant use initially and reassess every 3 years. The permittee must keep records of the information and supporting calculations that show how predominant use is determined. All equipment on the storage vessel must be monitored when in VOC service.
(i) If applicable, equipment that is in vacuum service is excluded from the requirements of 40 CFR §§ 60.482-2a through 60.482-10a if it is identified as required in 40 CFR § 60.486a(e)(5).

 # 020 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.482-3a]

Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006

Standards: Compressors.

As applicable.

(a) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in 40 CFR § 60.482-1a(c), and in (h)–(j), below.
(b) Each compressor seal system as required in paragraph (a) of this section shall be:
(1) operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or
(2) equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of 40 CFR § 60.482-10a; or
(3) equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.

(c) The barrier fluid system shall be in heavy liquid service or shall not be in VOC service.
(d) Each barrier fluid system as described in (a), above, shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.
(e) Each sensor as required in (d), above, shall be checked daily or shall be equipped with an audible alarm. The permittee shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.
(f) If the sensor indicates failure of the seal system, the barrier system, or both based on the criterion determined under (e)(2), above, a leak is detected.
(g) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR § 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
(h) A compressor is exempt from the requirements of (a)–(b), above, if it is equipped with a closed vent system to capture and transport leakage from the compressor drive shaft back to a process or fuel gas system or to a control device that complies with the requirements of 40 CFR § 60.482-10a, except as provided in (i), below.
(i) Any compressor that is designated, as described in 40 CFR § 60.486a(e)(1)–(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of (a)–(h), above, if the compressor:
(1) is demonstrated to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the methods specified in 40 CFR § 60.485a(c); and
(2) is tested for compliance with (i)(1), above, initially upon designation, annually, and at other times requested by the Administrator or the Department.

(j) Any existing reciprocating compressor in a process unit which becomes an affected source under provisions of 40 CFR §§ 60.14 or 60.15 is exempt from (a)–(e) and (h), above, provided the permittee demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of (a)–(e) and (h), above.

 # 021 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.482-4a]

Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006

Standards: Pressure relief devices in gas/vapor service.

(a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR § 60.485a(c).
(b) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as

SECTION D. Source Level Plan Approval Requirements

indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR § 60.482-9a. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR § 60.485a(c).
(c) Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR § 60.482-10a is exempted from the requirements of (a)–(b), above.
(d) Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of (a)–(b), above, provided that after each pressure release, the permittee installs a new rupture disk upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR § 60.482-9a.

 # 022 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.482-5a]

Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006

Standards: Sampling connection systems.

As applicable.

Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR § 60.482-1a(c) and the following requirements:
(a) gases displaced during filling of the sample container are not required to be collected or captured;
(b) containers that are part of a closed-purge system must be covered or closed when not being filled or emptied;
(c) gases remaining in the tubing or piping between the closed-purge system valve(s) and sample container valve(s) after the valves are closed and the sample container is disconnected are not required to be collected or captured; and
(d) each closed-purge, closed-loop, or closed-vent system shall be designed and operated to meet requirements in either (d)(1), (2), (3), or (4), below:
(1) return the purged process fluid directly to the process line;
(2) collect and recycle the purged process fluid to a process;
(3) capture and transport all the purged process fluid to a control device that complies with the requirements of 40 CFR § 60.482-10a; or
(4) collect, store, and transport the purged process fluid to any of the following systems or facilities:
(i) a waste management unit as defined in 40 CFR § 63.111, if the waste management unit is subject to and operated in compliance with the provisions of 40 CFR Part 63, Subpart G, applicable to Group 1 wastewater streams;
(ii) a treatment, storage, or disposal facility subject to regulation under 40 CFR Parts 262, 264, 265, or 266;
(iii) a facility permitted, licensed, or registered by a state to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR Part 261;
(iv) a waste management unit subject to and operated in compliance with the treatment requirements of 40 CFR § 61.348(a), provided all waste management units that collect, store, or transport the purged process fluid to the treatment unit are subject to and operated in compliance with the management requirements of 40 CFR §§ 61.343–347; or
(v) a device used to burn off-specification used oil for energy recovery in accordance with 40 CFR Part 279, Subpart G, provided the purged process fluid is not hazardous waste as defined in 40 CFR Part 261.

(c) in-situ sampling systems and sampling systems without purges are exempt from the requirements above.

 # 023 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.482-6a]

Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006

Standards: Open-ended valves or lines.

(a) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR § 60.482-1a(c), and in (d)–(e), below. The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line.
(b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.
(c) When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with (a), above.

SECTION D. Source Level Plan Approval Requirements

(d) Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of (a)–(c), above.
(e) Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in (a)–(c), above, are exempted from those requirements.

 # 024 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.482-9a]

Subpart VVa - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006

Standards: Delay of repair.

(a) Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown. Monitoring to verify repair must occur within 15 days after startup of the process unit.
(b) Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service.
(c) Delay of repair for valves and connectors will be allowed if:
(1) the permittee demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and
(2) when repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with 40 CFR § 60.482-10a.
(d) Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.
(e) When delay of repair is allowed for a leaking valve, or connector that remains in service, the valve, or connector may be considered to be repaired and no longer subject to delay of repair requirements if two consecutive monthly monitoring instrument readings are below the leak definition.

VII. ADDITIONAL REQUIREMENTS.

 # 025 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

(a) Before this plan approval may be incorporated into Title V Operating Permit No. 23-00119, the permittee shall provide the Department with the following:

(1) A list of the components that are affected by this project (Project Phoenix) and subject to the provisions of 40 C.F.R. Part 60, Subpart VVa.

(2) The applicable requirements for the components.

(3) The methods of complying with the requirements.

(b) New fugitive emissions components from this project include the following:

(1) Refrigeration system components.

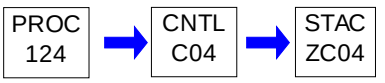
(2) Amine treatment system components.

SECTION D. Source Level Plan Approval Requirements

Source ID: 124 Source Name: REFRIGERATED ETHANE STORAGE TANK (600,000 BBL)

Source Capacity/Throughput: N/A ETHANE

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



I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

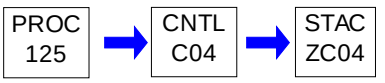
No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

SECTION D. Source Level Plan Approval Requirements

Source ID: 125 Source Name: REFRIGERATED ETHANE STORAGE TANK (600,000 BBL)

Source Capacity/Throughput: N/A ETHANE

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



I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

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

SECTION D. Source Level Plan Approval Requirements

Source ID: 141 Source Name: WSAC SYSTEMS (2)

Source Capacity/Throughput: N/A WATER

PROC 141 → STAC Z141

I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this plan approval condition is derived from 25 Pa. Code § 123.13(c)(1)(iii).]

(a) The permittee shall ensure that particulate matter (PM) emissions from each of these WSAC systems occurs in such a manner that the concentration of PM in the exhaust gas does not exceed 0.02 grains per dry standard cubic foot (gr/dscf).

(b) The permittee shall ensure that emission into the outdoor atmosphere of PM from these WSAC systems does not exceed 0.55 tons/yr, calculated monthly as a 12-month rolling sum.

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

 # 002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall demonstrate compliance with the PM emission restrictions specified in Condition # 001(a)–(b), Section D (under Source ID 141), of this plan approval, for these WSAC systems by performing a monthly analysis for total dissolved solids (ppm, by weight) and/or conductivity (µmhos), or another Department-approved method.

 # 003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall inspect the high-efficiency drift eliminators of each of these WSAC systems on a 3-year (preventative maintenance cycle) basis.

 # 004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall monitor the average cooling water circulation flow rate (gals/min) through each of these WSAC systems on a monthly basis.

IV. RECORDKEEPING REQUIREMENTS.

 # 005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall maintain records of the following information for any delay of repair of leaks for these WSAC systems:

(a) Identification of the affected WSAC system.

(b) Identification of the location of the leak.

(c) The reason(s) for the delay of repair.

SECTION D. Source Level Plan Approval Requirements

(d) A schedule for completing the repair as soon as practical, but no later than the next shutdown.

(e) The date and concentration of the leak as first identified and the results of all subsequent testing/monitoring events during the delay of repair period.

(f) An estimate of the VOC emissions from the leak for each required delay of repair monitoring interval using the following procedures:

(1) Determine the leak concentration by converting the stripping gas leak concentration (ppm) to an equivalent liquid concentration (ppm, by weight).

(2) Determine the mass flow rate of the cooling water circulated through the affected WSAC system at the monitoring location where the leak was detected. If the monitoring location is an individual riser, determine the total cooling water mass flow rate. Cooling water mass flow rates may be determined using direct measurement, pump curves, heat balance calculations, or other engineering methods. Volumetric flow measurements may be used and converted to mass flow rates using the density of water at the specific monitoring location temperature, or using a default density of water of 8.32 lbs/gal.

(3) For delay of repair monitoring intervals prior to repair of the leak, calculate the potential VOC emissions from the leak for the monitoring interval by multiplying the leak concentration and mass flow rate of cooling water determined in (d)(1)–(2), above, respectively, by the duration of the delay of repair monitoring interval. The duration of the delay of repair monitoring interval is the time period starting at midnight on the day of the previous monitoring event or at midnight on the day the repair would have had to be completed if the repair had not been delayed, whichever is later, and ending at midnight of the day the of the current monitoring event.

(4) For delay of repair monitoring intervals ending with a repaired leak, calculate the potential VOC emissions by multiplying the leak concentration and mass flow rate of cooling water determined for the last monitoring event prior to the re-monitoring event used to verify the leak was repaired by the duration of the final delay of repair monitoring interval. The duration of the final delay of repair monitoring interval is the time period starting at midnight of the day of the last monitoring event prior to remonitoring to verify the leak was repaired and ending at the time of the re-monitoring event that verified that the leak was repaired.

 # 006 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

(a) The permittee shall maintain records of the following operating parameters for each of these WSAC systems on a monthly basis:

(1) The average cooling water circulation flow rate (gals/min) through the WSAC system.

(2) The total dissolved solids (ppm, by weight) and/or conductivity (µmhos) of the cooling water.

(b) The permittee shall maintain records of the following for the WSAC systems:

(1) The results of the 3-year (preventative maintenance cycle) inspections of the high-efficiency drift eliminators.

(2) The manufacturer's specifications for the design drift rate.

(c) The permittee shall maintain records of the PM emissions from the WSAC systems on a monthly and 12-month rolling basis, calculated using a Department-approved method.

V. REPORTING REQUIREMENTS.

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

SECTION D. Source Level Plan Approval Requirements

VI. WORK PRACTICE REQUIREMENTS.

 # 007 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

(a) The permittee shall collect samples of the cooling water circulated through each of these WSAC systems at the locations where it enters and exits the heat exchangers, and analyze the cooling water for VOCs to enable the early detection of leaks. Using a one-sided statistical procedure at the 0.05 level of significance, each instance where the exit mean concentration of VOCs is at least 1 ppm, by weight, or 10% greater than the entrance mean concentration of VOCs, whichever is greater, constitutes a leak.

(b) The concentration of VOCs in the cooling water shall be determined using any EPA-approved method listed in 40 C.F.R. Part 136, as long as the method is sensitive to concentrations as low as 10 ppm, by volume. The same method shall be used for both the entrance and exit samples. Alternative methods may be used upon approval by the Administrator.

(c) When a sample is found to contain VOCs, the permittee shall resample the following day to ensure reliability of the analysis.

(d) The value from analyzed sample(s) shall be used in the monthly VOC emission calculation.

(e) The monitoring for VOC leaks shall be performed in accordance with the following schedule:

(1) Weekly for 6 months, both initially (i.e., after first being placed into operation) and following completion of a leak repair.

(2) Monthly thereafter until a leak is detected.

 # 008 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall repair any leaks in these WSAC systems within 45 days after first identifying the leak, except as indicated in Condition # 009(a)–(b), Section D (under Source ID 141), of this plan approval. Actions that may be taken to achieve repair include, but are not limited to:

(a) Physical modifications to the leaking heat exchanger, such as welding the leak or replacing a tube.

(b) Blocking the leaking tube within the heat exchanger.

(c) Changing the pressure so that water flows into the process fluid.

(d) Replacing the heat exchanger or heat exchanger bundle.

(e) Isolating, bypassing, or otherwise removing the leaking heat exchanger from service until it is repaired.

 # 009 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall repair any leaks in these WSAC systems as soon as practicable, but no later than 45 days after first identifying the leak, except that the repair may be delayed as follows:

(a) If the repair is technically infeasible without a shutdown of the affected WSAC system, and the total VOC emissions would be less than 25% of the permitted emission limits if a repair would take place, the permittee may delay repair until the next scheduled shutdown of the affected WSAC system. If the VOC concentration increases over successive monitoring periods, the permittee shall repair the leak within 30 calendar days.

(b) If the necessary equipment, parts, or personnel are not available, the permittee may delay the repair for a maximum of 120 calendar days. The permittee must demonstrate that the necessary equipment, parts, or personnel were not available. If the VOC concentration increases over successive monitoring periods, the permittee shall repair the leak within 30 calendar days.

SECTION D. Source Level Plan Approval Requirements

 # 010 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

(a) The permittee shall not use chromium-based water treatment chemicals in these WSAC systems.

(b) The WSAC systems shall be installed, operated, and maintained in accordance with the manufacturer's specifications.

VII. ADDITIONAL REQUIREMENTS.

 # 011 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

This source grouping shall consist of two 21,000-gpm WSAC systems, each equipped with a high-efficiency drift eliminator. The WSAC systems shall provide cooling water to the ethane and propane refrigeration systems of Project Phoenix.

SECTION D. Source Level Plan Approval Requirements

Source ID: C04 Source Name: PROJECT PHOENIX COLD FLARE

Source Capacity/Throughput: 9.452 MCF/HR PILOT/PURGE/SWEEP GAS

I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this plan approval condition is derived from 40 C.F.R. §§ 60.18(b) and (c)(1), 60.112b(a)(3)(ii), and 60.482-10a(d); and 25 Pa. Code Chapter 122.]

This cold flare shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

Control Device Efficiency Restriction(s).

 # 002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this plan approval condition is derived from 25 Pa. Code § 127.205(1).]

The permittee shall ensure that this cold flare is designed and operated to reduce inlet VOC emissions by equal to or greater than 99.0%.

[Compliance with this streamlined plan approval condition assures compliance with the VOC control efficiency restriction of 95% indicated in 40 C.F.R. §§ 60.112b(a)(3)(ii).]

II. TESTING REQUIREMENTS.

 # 003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this plan approval condition is derived from 40 C.F.R. §§ 60.18(b) and (f)(1) and (3)–(4), 60.112b(a)(3)(ii), 60.482-10a(d), and 60.485a(a) and (g)(1) and (5)–(7); and 25 Pa. Code Chapters 122 and 139.]

(a) Within 180 days after the commencement of operation of this cold flare, the permittee shall perform a stack test for the cold flare, as follows:

(1) In accordance with the provisions of 25 Pa. Code Chapter 139.

(2) While the flare 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.

(3) Using the following test methods, or (an)other Department-approved test method(s), to determine compliance with the standards for flares for this cold flare:

(i) EPA Method 22 to determine compliance with the visible emission restriction specified in Condition # 001, Section D

SECTION D. Source Level Plan Approval Requirements

(under Source ID C04), of this plan approval. The observation period shall be 2 hours.

(ii) EPA Method 2, 2A, 2C, or 2D, as appropriate, to determine the volumetric flow rate (at standard temperature and pressure of 25 °C and 760 mm Hg, respectively) of the cold flare. The permittee shall divide this value by the unobstructed (free) cross-sectional area of the flare tip to obtain the actual exit velocity of the cold flare.

(iii) EPA Method 3A to determine the composition and molecular weight of the flue gas for the cold flare.

(iv) EPA Method 18 to determine the hydrocarbon components of the gas combusted in the cold flare.

(v) EPA Method 18 and ASTM D2504-88 (or the most recent revision) to determine the concentration of sample component "i" in the equation referenced in Condition # 008(a), Section D (under Source ID C04), of this plan approval.

(vi) ASTM D2382-88 (or the most recent revision) to determine the net heat of combustion of sample component "i" in the equation referenced in Condition # 008(a), Section D (under Source ID C04), of this plan approval, if published values are not available or cannot be calculated.

(b) At least 90 days prior to the stack test, the permitttee shall submit, to the Department for approval, the procedures for the test and a sketch with dimensions indicating the location of sampling ports and other data to ensure the collection of representative samples. A test protocol shall be approved by the Source Testing Section of the Department prior to the test.

(c) At least 30 days prior to the stack test, the permittee shall inform the Regional Air Quality Program Manager of the Department of the date and time of the test.

(d) Within 60 days after the stack test, the permittee shall submit two copies of the complete test report, including all operating conditions, to the Regional Air Quality Program Manager of the Department for approval.

(e) The permittee may request an extension of time for any deadlines indicated in (a)–(d), above, with which it is unable to comply. The request must be in writing and include a justification for the extension. The Department may grant the extension for reasonable cause.

III. MONITORING REQUIREMENTS.

 # 004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

(a) The permittee shall monitor this cold flare for the presence of a pilot flame on a continuous basis.

(b) The permittee shall monitor the type and amount of fuel combusted in the cold flare on a daily basis.

IV. RECORDKEEPING REQUIREMENTS.

 # 005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

(a) The permittee shall maintain records of the presence of a pilot flame for this cold flare on a continuous basis.

(b) The permittee shall maintain records of the type and amount of fuel combusted in the cold flare on a daily basis.

V. REPORTING REQUIREMENTS.

 # 006 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this plan approval condition is derived from 40 C.F.R. § 60.115b(d)(1) and (3) and 25 Pa. Code Chapter 122.]

The permittee shall submit, to the Department, the following reports for this cold flare:

SECTION D. Source Level Plan Approval Requirements

(a) A report containing the measurements required in Condition # 003(a)–(b) and (e)–(f), Section D (under Source ID C04), of this plan approval), within 60 days after the stack test.

(b) A semi-annual report indicating all periods of operation during which the pilot flame was absent.

(c) The report indicated in (b), above, shall be submitted according to the following schedule:

(1) By January 31, of each year, for the period covering July 1–December 31, of the previous year.

(2) By July 31, of each year, for the period covering January 1–June 30, of the same year.

VI. WORK PRACTICE REQUIREMENTS.

 # 007 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this plan approval condition is derived from 40 C.F.R. §§ 60.18(b) and (f)(3), 60.112b(a)(3)(ii), 60.482-10a(d), and 60.485a(g)(4); and 25 Pa. Code Chapter 122.]

(a) The permittee shall use the equation indicated in 40 C.F.R. § 60.485a(g)(4) to calculate the net heating value of the gas combusted in this cold flare.

(b) The permittee shall use the equation indicated in 40 C.F.R. § 60.485a(g)(3) to calculate the maximum permitted velocity for the cold flare.

 # 008 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this plan approval condition is derived from 40 C.F.R. §§ 60.18(b) and (f)(2), 60.112b(a)(3)(ii), 60.482-10a(d), and 60.485a(g)(2); and 25 Pa. Code Chapter 122.]

The permittee shall use an infrared sensor, or other Department-approved device, to monitor this flare for the presence of a pilot flame.

 # 009 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this plan approval condition is also derived from 40 C.F.R. §§ 60.18(b), (c)(2), (3)(ii), and (5), and (d), 60.112b(a)(3)(ii), and 60.482-10a(d)–(e); and 25 Pa. Code Chapter 122.]

The permittee shall ensure that this cold flare is operated and maintained in conformance with its design, and in accordance with the following requirements:

(a) A flame shall be present at all times.

(b) The gas combusted in the cold flare shall have a minimum net heating value of 300 Btu/scf. The net heating value of the gas combusted in the cold flare shall be determined as indicated in Condition # 007(a), Section D (under Source ID C04), of this plan approval.

(c) The actual exit velocity of the low-pressure flare tip of the cold flare shall be less than the maximum permitted velocity for air-assisted flares. The maximum permitted velocity shall be determined as indicated in Condition # 007(b), Section D (under Source ID C04), of this plan approval.

VII. ADDITIONAL REQUIREMENTS.

 # 010 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

This source shall consist of an elevated (Project Phoenix) cold flare equipped with low-pressure (air-assisted) and high-pressure (unassisted) flare tips. The cold flare shall be used to flare refrigerated ethane streams that do not contain water.

SECTION E. Source Group Plan Approval Restrictions.

Group Name: GROUP 1

Group Description: Refrigerated Ethane Storage Tank Conditions

Sources included in this group

ID	Name
124	REFRIGERATED ETHANE STORAGE TANK (600,000 BBL)
125	REFRIGERATED ETHANE STORAGE TANK (600,000 BBL)

I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

 # 001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall monitor the ethane throughput for this refrigerated ethane storage tank on a daily basis.

IV. RECORDKEEPING REQUIREMENTS.

 # 002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this plan approval condition is derived from 40 C.F.R. § 60.115b(d)(2) and 25 Pa. Code Chapter 122.]

The permittee shall maintain records of all periods of operation of this refrigerated ethane storage tank during which the pilot flame of the associated cold flare (Source ID C04) is absent.

 # 003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this plan approval condition is derived from 40 C.F.R. § 60.116b(b) and 25 Pa. Code Chapter 122.]

The permittee shall maintain records of the dimensions of this refrigerated ethane storage tank, and an analysis showing the capacity of the storage tank, in a readily-accessible format for the life of the storage tank.

 # 004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this plan approval condition is derived from 40 C.F.R. § 60.116b(c) and 25 Pa. Code Chapter 122.]

The permittee shall maintain records of the following operating parameters for the ethane stored in this refrigerated ethane storage tank:

(a) The throughput, on a daily basis.

(b) The starting and ending dates of storage (if not continuous).

(c) The highest calendar-month average storage temperature.

(d) The maximum true vapor pressure as stored.

V. REPORTING REQUIREMENTS.

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

SECTION E. Source Group Plan Approval Restrictions.

VI. WORK PRACTICE REQUIREMENTS.

 # 005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this plan approval condition is derived from 40 C.F.R. § 60.112b(a)(3)(i) and 25 Pa. Code Chapter 122.]

The permittee shall ensure that emissions from this refrigerated ethane storage tank are controlled by a closed vent system designed to collect all vapors and gases discharged from the storage tank, and that the storage tank is operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in accordance with the provisions of 40 C.F.R. § 60.485a(b).

VII. ADDITIONAL REQUIREMENTS.

 # 006 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Additional applicable requirements for this refrigerated ethane storage tank are specified in Section D (under Source ID 103), of Title V Operating Permit No. 23-00119, except that, pursuant to 40 C.F.R. § 60.480a(d)(5), the tank is exempt from the provisions of 40 C.F.R. §§ 60.482-1a through 60.482-11a.

 # 007 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

This source shall consist of a 600,000-bbl refrigerated ethane storage tank with vapor recovery system. Ethane vapors shall be condensed to a liquid state by the vapor recovery system before being hard-piped back to the storage tank.

SECTION F. Alternative Operation Requirements.

No Alternative Operations exist for this Plan Approval facility.

SECTION G. Emission Restriction Summary.

Source Id	Source Description
141	WSAC SYSTEMS (2)

Emission Limit			Pollutant
0.020	gr/DRY FT3	From Each WSAC System	TSP
0.550	Tons/Yr	12-Month Rolling Sum, Calculated Monthly	TSP

Site Emission Restriction Summary

Emission Limit	Pollutant

SECTION H. Miscellaneous.

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