

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY PROGRAM

PLAN APPROVAL

Issue Date: November 29, 2018

Effective Date: November 29, 2018

Expiration Date: [REDACTED]

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. 10-027H

Federal Tax Id - Plant Code: 26-1547648-1

Owner Information

Name: CALUMET KARNS CITY REF LLC
Mailing Address: 138 PETROLIA ST
KARNS CITY, PA 16041-9222

Plant Information

Plant: CALUMET KARNS CITY REF LLC/KARNS CITY
Location: 10 Butler County 10934 Karns City Borough
SIC Code: 2999 Manufacturing - Petroleum And Coal Products, Nec

Responsible Official

Name: WILLIAM CRAMER
Title: PLANT MGR
Phone (724) 756 - 0110

Plan Approval Contact Person

Name: KEVIN M KLINE
Title: ENVIRONMENTAL SPECIALIST
Phone: (724) 756 - 9426

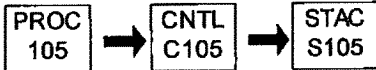
[Signature]

Eric A. Gustafson
ERIC A. GUSTAFSON, NORTHWEST REGION AIR PROGRAM MANAGER



Source ID	Source Name	Capacity/Throughput	Fuel/Material
101	RETORT PROCESS HEATERS (2)		
105	ALCOHOL STORAGE AND HANDLING		
106	PLANT FUGITIVE VOC EMISSION		
C105	REFRIGERATED CONDENSER		
S105	CONDENSER STACK		
Z01	FACILITY FUGITIVE		

PERMIT MAPS



SECTION 1. GENERAL PROVISIONS

1.1. [REDACTED]

1.2. [REDACTED]

1.3. [REDACTED]

1.4. [REDACTED]

1.5. [REDACTED]

1.6. [REDACTED]

1.7. [REDACTED]

1.8. [REDACTED]

1.9. [REDACTED]

1.10. [REDACTED]

1.11. [REDACTED]

VI. WORK PRACTICE REQUIREMENTS.

003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

(a) The owner or operator shall do the following:

(1) Develop and conduct a monitoring program consistent with the provisions of subsection (d).

(2) Record leaking refinery components which have a VOC concentration exceeding 2000 ppm for pumps, or 500 ppm for all other applicable components, when tested in accordance with the provisions of 25 Pa. Code §139.14 (relating to emissions of VOCs and place an identifying tag on each refinery component consistent with the provisions in subsection (d)(3).

(3) Repair and retest the leaking refinery components as soon as possible. Every reasonable effort shall be made to repair each leak within 15 days unless a refinery unit shutdown is required to make the necessary repair.

(4) Identify leaking refinery components which cannot be repaired until the unit is shutdown for turnaround.

(b) Except for safety pressure relief valves and fittings on all valves 1 inch or smaller, no owner or operator shall install or operate a valve at the end of a pipe or line containing VOCs unless the pipe or line is sealed with a second valve, a blind flange, a plug or a cap. The sealing device may be removed only when a sample is being taken or during maintenance operations.

(c) Pipeline valves and pressure relief valves in gaseous VOC service shall be marked in some manner that will be readily obvious to both refinery personnel performing monitoring and the Department.

(d) Monitoring shall be done as follows:

(1) The owner or operator shall conduct a monitoring program consistent with the following requirements:



SECTION D: Source Level Plan Approval Requirements

Source ID: 101

Source Name: RETORT PROCESS HEATERS (2)

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

No additional requirements exist over those provided in other sections of this plan approval including Section D (Plan Approval Requirements).

[REDACTED]

[REDACTED]

[REDACTED]

III. MONITORING REQUIREMENTS.

001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall monitor the operating temperature of the furnace(s) a minimum of once per eight (8) hour shift, when the source(s) are in operation.

IV. RECORDKEEPING REQUIREMENTS.

002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

a. The permittee shall maintain records of operating temperature monitoring, which shall include records of any corrective actions taken due to temperatures below 900°F.

b. All required records shall be maintained for a minimum of five (5) years, and shall be made available to the Department upon request.

[REDACTED]

[REDACTED]

[REDACTED]

VI. WORK PRACTICE REQUIREMENTS.

003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The source and control device shall be operated and maintained in accordance with the manufacturer's specifications and in accordance with good air pollution control practices.

[Authority for this condition is also derived from 25 PA Code 129.93]

004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

a. During bauxite regeneration, furnace temperatures shall be maintained at a minimum of 900°F.

b. If furnace temperatures of <900°F are observed, the permittee shall immediately cease bauxite addition to the furnace(s), and shall take appropriate corrective action.

[REDACTED]

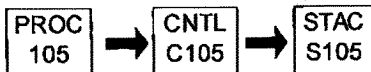
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[REDACTED]



Source ID: 105

Source Name: ALCOHOL STORAGE AND HANDLING

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §127.12b]**

Plan approval terms and conditions.

VOC emissions from the condenser vent shall not exceed either of the following:

- a. 7.4 lbs/hr
- b. 6.2 tons per year, on a 12-month rolling basis

002 [25 Pa. Code §129.72]~~Manufacture of surface-active agents~~

~~No person may cause, suffer or permit the emission into the outdoor atmosphere of volatile organic compounds from solvent wash tanks, reaction vessels, separators, distillation processes, solvent strippers and solvent storage tanks unless the emissions are exhausted through an emission reduction system which is designed and operated to recover or destroy at least 90% by weight of the volatile organic compound emissions.~~

II. TESTING REQUIREMENTS.**# 003 [25 Pa. Code §127.12b]**

Plan approval terms and conditions.

(a) Within 180 days of commencement of operation of the refrigerated condenser, the permittee shall conduct a stack test for VOC in order to demonstrate compliance with the emission limits set forth in this plan approval. An extension may be granted by the Department provided that the permittee submits a written request at least 60 days prior to the end of the 180 days.

(b) Repeat stack testing of this source for VOC shall be conducted a minimum of once within each subsequent five (5) year period following the initial stack test.

(c) The stack tests shall be performed in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department to demonstrate compliance with the emission limits for this source. Appropriate U.S. EPA Reference Methods shall be used to determine the emission rates of all pollutants. Testing shall occur when the subject source(s) are operating at maximum normal operating conditions.

(d) Pursuant to 25 Pa. Code § 139.3 to at least 90 calendar days prior to commencing an emissions testing program, a test protocol shall be submitted to the Department for review and approval. The test protocol shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.

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

(f) Pursuant to 25 Pa. Code Section 139.53(a)(3) within 15 calendar days after completion of the on-site testing portion of an emission test program, if a complete test report has not yet been submitted, an electronic mail notification shall be sent to the Department's Division of Source Testing and Monitoring indicating the completion date of the on-site testing.

(g) Pursuant to 40 CFR Part 60.8(a), 40 CFR Part 61.13(f) and 40 CFR Part 63.7(g) a complete test report shall be



submitted to the Department no later than 60 calendar days after completion of the on-site testing portion of an emission test program. For those tests being conducted pursuant to 40 CFR Part 61, the, a complete test report shall be submitted within 31 days after completion of the test.

(h) Pursuant to 25 Pa. Code Section 139.53(b) a complete test report shall include a summary of the emission results on the first page of the report indicating if each pollutant measured is within permitted limits and a statement of compliance or non-compliance with all applicable permit conditions. The summary results will include, at a minimum, the following information:

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

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

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

(k) Pursuant to 25 Pa. Code Section 139.53(a)(1) and 139.53(a)(3) all submittals, besides notifications, shall be accomplished through PSIMS*Online available through <https://www.depgreenport.state.pa.us/ecommm/Login.jsp> when it becomes available. If internet submittal can not be accomplished, three copies of the submittal shall be sent to the Pennsylvania Department of Environmental Protection, Bureau of Air Quality, Division of Source Testing and Monitoring, 400 Market Street, 12th Floor Rachael Carson State Office Building, Harrisburg, PA 17105-8468 with deadlines verified through document postmarks.

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

(m) If the results of a stack test, performed as required by this approval, exceed the level specified in any condition of this plan approval, the Permittee shall take appropriate corrective actions. Within 30 days of the Permittee receiving the stack test results, a written description of the corrective actions shall be submitted to the Department. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. The Department shall notify the Permittee within 30 days, if the corrective actions taken are deficient. Within 30 days of receipt of the notice of deficiency, the Permittee shall submit a description of additional corrective actions to the Department. The Department reserves the authority to use enforcement activities to resolve noncompliant stack tests.

(n) If the results of the required stack test exceed any limit defined in this plan approval, the test was not performed in accordance with the stack test protocol or the source and/or air cleaning device was not operated in accordance with the plan approval, then another stack test shall be performed to determine compliance. Within 120 days of the Permittee receiving the original stack test results, a retest shall be performed. The Department may extend the retesting deadline if the Permittee demonstrates, to the Department's satisfaction, that retesting within 120 days is not practicable. Failure of the second test to demonstrate compliance with the limits in the plan approval, not performing the test in accordance with the stack test protocol or not operating the source and/or air cleaning device in accordance with the plan approval may be grounds for immediate revocation of the plan approval to operate the affected source.

**IV. RECORDKEEPING REQUIREMENTS.****# 004 [25 Pa. Code §127.12b]**

Plan approval terms and conditions.

The permittee shall monitor and record the following process parameters a minimum of once per batch:

- a. Agitator temperature
- b. Quantity of alcohol added
- c. Condenser outlet temperature

All required records shall be maintained on site for a minimum of five (5) years, and shall be made available to the Department upon request.

005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall maintain a record of all preventative maintenance inspections of the source(s) and control device. These records shall, at a minimum, contain the dates of the inspections, any problems or defects, the actions taken to correct the problems or defects, and any routine maintenance performed.

VI. WORK PRACTICE REQUIREMENTS.**# 006 [25 Pa. Code §127.12b]**

Plan approval terms and conditions.

The permittee shall install, maintain, and operate the control device(s) in accordance with manufacturers' specifications and in accordance with good air pollution control practices.

007 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The condenser outlet temperature shall be maintained at 50°F or below.

008 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

The source shall be operated and maintained in accordance with the manufacturer's specifications and in accordance with good air pollution control practices.

**SECTION 2 - SOURCE Level Permit Requirements**

Source ID: 106

Source Name: PLANT FUGITIVE VOC EMISSION

PROC
106STAC
Z01**1. OPERATIONS:**

[REDACTED]

2. EMISSIONS:

[REDACTED]

3. COMPLIANCE:

[REDACTED]

4. RECORDKEEPING REQUIREMENTS:

[REDACTED]

5. MONITORING:

[REDACTED]

6. ADDITIONAL REQUIREMENTS:

[REDACTED]

7. NOTES:

[REDACTED]

Any page numbers not included in this document shall be considered to be redacted in full.