



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

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P.O. Box 1049
Columbus, OH 43216-1049

RECEIVED
NOV 19 2003
CANTON CITY HEALTH DEPT.
AIR POLLUTION DIVISION

**RE: FINAL PERMIT TO INSTALL
STARK COUNTY
Application No: 15-01544**

CERTIFIED MAIL

	TOXIC REVIEW
	PSD
	SYNTHETIC MINOR
	CEMS
	MACT
40 CFR Part 60, subpart VV and GGG	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

DATE: 11/13/2003

Marathon Ashland Petroleum LLC-Canton
Brent McNeese
2408 Gambirinus Avenue SW
Canton, OH 44706

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, Ohio 43215

Sincerely,

Michael W. Ahern, Supervisor
Field Operations and Permit Section
Division of Air Pollution Control

CC: USEPA

Canton LAA



Permit To Install
Terms and Conditions

Issue Date: 11/13/2003
Effective Date: 11/13/2003

FINAL PERMIT TO INSTALL 15-01544

Application Number: 15-01544
APS Premise Number: 1576000301
Permit Fee: \$200
Name of Facility: Marathon Ashland Petroleum LLC-Canton
Person to Contact: Brent McNeese
Address: 2408 Gambrinus Avenue SW
Canton, OH 44706

Location of proposed air contaminant source(s) [emissions unit(s)]:
**2408 Gambrinus Avenue SW
Canton, Ohio**

Description of proposed emissions unit(s):
Fugitive VOC Equipment leaks from the modification of emission units during 2003/2004 turnaround at the Canton Refinery.

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install General Terms and Conditions

1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - i. The date, place (as defined in the permit), and time of sampling or measurements.
 - ii. The date(s) analyses were performed.
 - iii. The company or entity that performed the analyses.
 - iv. The analytical techniques or methods used.
 - v. The results of such analyses.
 - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
 - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written

reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.9 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
- iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

3. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition

depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

6. General Requirements

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

7. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit To Install fees within 30 days after the issuance of this Permit To Install.

8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

9. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
 - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

10. Permit To Operate Application

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the

emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

11. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

12. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

B. State Only Enforceable Permit To Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Permit Transfers

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

4. Termination of Permit To Install

This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

5. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

6. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

7. Applicability

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

8. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit To Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

9. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

C. Permit To Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

**SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
Total Fugitive VOC	12.3

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions

None

B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P022 - VOC EMISSIONS FROM THE CRUDE UNIT, FCC UNIT, AND VACUUM UNIT RESULTING FROM THE 2003/2004 TAR PROJECT	OAC Rule 3745-31-05(A) 40 CFR Part 63, Subpart A 40 CFR Part 63, Subpart CC, 40 CFR Part 60, Subpart A 40 CFR Part 60, Subpart GGG, and 40 CFR Part 60, Subpart VV OAC rule 3745-21-09(T)	See sections A.I.2.a See sections A.I.2.b and A.I.2.c. See sections A.I.2.d through A.I.2.i

2. Additional Terms and Conditions

- 2.a BAT for the control of fugitive VOC emissions from the emission units described under this permit to install is the implementation of an approved Leak Detection and Repair(LDAR) Program as described in these terms and conditions.
- 2.b 40 CFR Part 63, Subpart A provides applicability provisions, definitions, and other general provisions that are applicable to emissions units affected by 40 CFR Part 63.
- 2.c [63.642(c)]
 Table 6 of 40 CFR Part 63, Subpart CC specifies the provisions of 40 CFR Part 63, Subpart A that apply and those that do not apply to permittees of sources subject to 40 CFR Part 63, Subpart CC.
- 2.d [63.648(a)] - Equipment Leaks
 In accordance with 40 CFR Part 63, Subpart CC, the permittee shall comply with the applicable provisions of 40 CFR Part 60, Subpart VV and paragraph (b) of 40 CFR Part 63.648 except as provided in paragraphs 2.c.i., 2.c.ii. of this section, and (c) through (i) of 40 CFR Part 63.648.

- i. [63.648(a)(1)]
For purposes of compliance with 40 CFR Part 63.648, the provisions of 40 CFR Part 60, Subpart VV apply only to equipment in organic HAP service, as defined in 40 CFR Part 63.641, Subpart CC.
 - ii. [63.648(a)(2)]
Calculation of percentage leaking equipment components for Subpart VV of 40 CFR Part 60 may be done on a process unit basis or a source wide basis. Once the permittee has decided, all subsequent calculations shall be on the same basis unless a permit change is made.
- 2.e [63.640(p)] - Equipment Leaks
If there is an overlap of 40 CFR Part 63, Subpart CC with other regulations for equipment leaks, after the compliance dates, that are also subject to the provisions of 40 CFR Part 60 and 61, the permittee is required to comply only with the provisions specified in 40 CFR Part 63, Subpart CC.
- 2.f [63.640(q)] - Equipment Leaks
For overlap of 40 CFR Part 63, Subpart CC with local or State regulations, the permitting authority for the affected source may allow consolidation of the monitoring, record keeping, and reporting requirements under Subpart CC with the monitoring, record keeping, and reporting requirements under other applicable requirements in 40 CFR Part 60, 61, or 63, and in any 40 CFR 52 approved State implementation plan provided the implementation plan allows for approval of alternative monitoring, reporting, or record keeping requirements and provided that the permit contains an equivalent degree of compliance and control.
- 2.g [63.640(1)(4)]
If pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, or instrumentation systems are added to an existing source, they are subject to the equipment leak standards for existing sources in 40 CFR Part 63.648 [see section A.II]. A notification of compliance status report shall not be required for such added equipment.
- 2.h [63.640(m)]
If a change that does not meet the criteria in 40 CFR Part 63.640(a) is made to a petroleum refining process unit subject to this subpart, and the change causes a Group 2 emission point to become a Group 1 emission point (as defined in 40 CFR Part 63.641), the permittee shall comply with the requirements of Subpart CC for existing sources for the Group 1 emission point as expeditiously as practicable, but in no event later than 3 years after the emission point becomes Group 1.
 - i. The permittee shall submit to the Administrator for approval a compliance schedule, along with a justification for the schedule.

- ii. The compliance schedule shall be submitted within 180 days after the change is made, unless the compliance schedule has been previously submitted to the permitting authority. If it is not possible to determine until after the change is implemented whether the emission point has become Group 1, the compliance schedule shall be submitted within 180 days of the date when the effect of the change is known to the source. The compliance schedule may be submitted in the next Periodic Report if the change is made after the date the Notification of Compliance Status report is due.
- iii. The Administrator shall approve or deny the compliance schedule or request changes within 120 calendar days of receipt of the compliance schedule and justification. Approval is automatic if not received from the Administrator within 120 calendar days of receipt.

- 2.i The permittee shall comply with the notification requirements in 40 CFR Part 60.7.
- 2.j The permittee shall comply with the OAC rule 3745 - 21-09(T) as specified in these terms and conditions.

II. Operational Restrictions

[63.648] EQUIPMENT LEAK STANDARDS - 40 CFR Part 63, Subpart CC

- 1. [63.648(b)]

The use of monitoring data generated before August 18, 1995 to qualify for less frequent monitoring of valves and pumps as provided under 40 CFR Part 60, Subpart VV and 40 CFR Part 63.648(c) [see section A.II. in Part II] (i.e., quarterly or semiannually) is governed by the requirements of 40 CFR Part 63.648(b)(1) and (b)(2) [see section A.II. in Part II].

 - a. [63.648(b)(1)]

Monitoring data must meet the test methods and procedures specified in 40 CFR 60.485 except for minor departures.
 - b. [63.648(b)(2)]

Departures from the criteria specified in 40 CFR Part 60.485(b) or from the monitoring frequency specified in 40 CFR Part 60, Subpart VV or in 40 CFR Part 63.648(c) [see section A.II. in Part II] (such as every 6 weeks instead of monthly or quarterly) are minor and do not significantly affect the quality of the data. An example of a minor departure is monitoring at a slightly different frequency (such as every 6 weeks instead of monthly or quarterly). Failure to use a calibrated instrument is not considered a minor departure.
- 2. [63.648(c)]

In lieu of complying with the existing source provisions of 63.648(a) [see section A.I.2. in Part II], the permittee may elect to comply with the requirements of 40 CFR Part 63.161 through 63.169, 63.171, 63.172, 63.175, 63.176, 63.177, 63.179 and 63.180 of Subpart H except as

provided in 40 CFR Part 63.648(c)(1) through (c)(10) and 40 CFR Part 63.648(e) through (i) of Subpart CC.

3. [63.648(f)]
Reciprocating pumps in light liquid service are exempt from 60.482 [see section A.II. in Part II] if recasting the distance piece or reciprocating pump replacement is required.
4. [60.482-1] STANDARDS: GENERAL - 40 CFR Part 60, Subpart VV
 - a. [60.482-1(a)]
Each permittee subject to the provisions of this subpart shall demonstrate compliance with the requirements of 60.482-1 to 60.482-10 [see section A.II. in Part II] for all equipment within 180 days of initial startup.
 - b. [60.482-1(b)]
Compliance with 60.482-1 to 60.482-10 [see section A.II. in Part II] will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in 60.485 [see section A.V. in Part II].
 - c. [60.482-1(c)(1) and (c)(2)]
 - i. The permittee may request a determination of equivalence of a means of emission limitation to the requirements of 60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-7, 60.482-8 and 60.482-10 [see section A.II. in Part II] as provided in 40 CFR Part 60.484.
 - ii. If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of 60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-7, 60.482-8 and 60.482-10 [see section A.II. in Part II], the permittee shall comply with the requirements of that determination.
 - d. [60.482-1(d)]
Equipment that is in vacuum service is excluded from the requirements of 60.482-2 to 60.482-10 [see section A.II. in Part II] if it is identified as required in 60.486(e)(5) [see section A.III. in Part II].
5. [60.482-2] STANDARDS: PUMPS IN LIGHT LIQUID SERVICE - 40 CFR Part 60, Subpart VV
 - a. [60.482-2(a)]
Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in 60.485(b) [see section A.V. in Part II], except as provided in 60.482-1(c) [see section A.II. in Part II] and paragraphs d., e., and f. of this section. Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.

- b. [60.482-2(b)]
If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. If there are indications of liquids dripping from the pump seal, a leak is detected.
- c. [60.482-2(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 60.482-9 [see section A.II. in Part II]. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
- d. [60.482-2(d)]
Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph a. of this section, provided the following requirements are met:
 - i. Each dual mechanical seal system is:
 - (a) operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or
 - (b) equipped with a barrier fluid degassing reservoir that is connected by a closed vent system to a control device that complies with the requirements of 60.482-10 [see section A.II.in Part II]; or
 - (c) equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.
 - ii. The barrier fluid system is in heavy liquid service or is not in VOC service.
 - iii. Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.
 - iv. Each pump is checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.
 - v. Each sensor as described in paragraph d.iii. of this section is checked daily or is equipped with an audible alarm, and 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.
 - vi. If there are indications of liquids dripping from the pump seal or the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined in paragraph d.v. of this section, a leak is detected. 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 60.482-9 [see section A.II.

in Part II]. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

- e. [60.482-2(e)]
Any pump that is designated, as described in 60.486(e)(1) and (2) [see section A.III. in Part II], for no detectable emission, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs a., c., and d. of this section if the pump:
 - i. has no externally actuated shaft penetrating the pump housing;
 - ii. 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 40.485(c) [see section A.V. in Part II]; and
 - iii. is tested for compliance with paragraph e.ii. of this section initially upon designation, annually, and at other times requested by the Administrator.

- f. [60.482-2(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 control device that complies with the requirements of 60.482-10 [see section A.II. in Part II], it is exempt from paragraphs a. through e. of this section.

- 6. [60.482-4] STANDARDS: PRESSURE RELIEF DEVICES IN GAS/VAPOR SERVICE - 40 CFR Part 60, Subpart VV
 - a. [60.482-4(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 60.485(c) [see section A.V. in Part II].

 - b. [60.482-4(b)]
After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as 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 60.482-9 [see section A.II. in Part II]. 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 60.485(c) [see section A.V. in Part II].

- c. [60.482-4(c)]
Any pressure relief device that is equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 60.482-10 [see section A.II.in Part II] is exempted from the requirements of paragraphs a. and b. of this section.

7. [60.482-5] STANDARDS: SAMPLING CONNECTION SYSTEMS - 40 CFR Part 60, Subpart VV

- a. [60.482-5(a)]
Each sampling connection system shall be equipped with a closed-purged, closed-loop, or closed-vent system, except as provided in 60.482-1(c) [see section A.II. in Part II].
- b. [60.482-5(b)]
Each closed-purge, closed-loop, or closed-vent system as required in paragraph a. of this section shall comply with the requirements specified in paragraphs b.i. through b.iii. of this section:
 - i. return the purged process fluid directly to the process line; or
 - ii. collect and recycle the purged process fluid to a process; or
 - iii. be designed and operated to capture and transport all the purged process fluid to a control device that complies with the requirements of 60.482-10 [see section A.II. in Part II].
- c. [60.482-5(c)]
In situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs a. and b. of this section.

8. [60.482-6] STANDARDS: OPEN-ENDED VALVES OR LINES - 40 CFR Part 60, Subpart VV

- a. [60.482-6(a)(1) and (2)]
Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 60.482-1(c) [see section A.II in Part II]. 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. [60.482-6(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. [60.482-6(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 paragraph a. of this section at all other times.
9. [60.482-7] STANDARDS: VALVES IN GAS/VAPOR SERVICE AND IN LIGHT LIQUID SERVICE - 40 CFR Part 60, Subpart VV
- a. [60.482-7(a)]
Each valve shall be monitored monthly to detect leaks by the methods specified in 60.485(b) [see section A.V. in Part II] and shall comply with paragraphs b. through e. of this section, except as provided in paragraphs f., g., and h. of this section, 60.483-1, 60.483-2, and 60.482-1(c) [see section A.II.].
 - b. [60.482-7(b)]
If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
 - c. [60.482-7(c)(1) and (2)]
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. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.
 - i. [60.482-7(d)(1) and (2)]
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 60.482-9 [see section A.II.]. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
 - ii. [60.482-7(e)(1)-(4)]
First attempts at repair include, but are not limited to, the following best practices where practicable:
 - (a) tightening of bonnet bolts;
 - (b) replacement of bonnet bolts;
 - (c) tightening of packing gland nuts; and
 - (d) injection of lubricant into lubricated packing.
 - iii. [60.482-7(f)(1)-(3)]
Any valve that is designated, for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraph a. of this section if the valve:

- (a) has no external actuating mechanism in contact with the process fluid;
- (b) is operated with emissions less than 500 ppm above background as determined by the method specified in 60.485(c) [see section A.V. in Part II]; and
- (c) is tested for compliance with paragraph f.ii. of this section initially upon designation, annually, and at other times requested by the Director and/or Administrator.

iv. [60.482-7(g)(1)(2)]

Any valve that is designated, as described in 60.486(f)(1) [see section A.III. of Part II], as an unsafe-to-monitor valve is exempt from the requirements of paragraph a. of this section if:

- (a) the permittee of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph a. of this section; and
- (b) the permittee of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.

d. [60.482-7(h)(1)-(3)]

Any valve that is designated, as described in 60.486(f)(2) [see section A.III. of Part II], as a difficult-to-monitor valve is exempt from the requirements of paragraph a. of this section if:

- a. the permittee of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface;
- b. the process unit within which the valve is located either becomes an affected facility through 40 CFR Part 60.14 or 60.15 or the permittee designates less than 3.0 percent of the total number of valves as difficult-to-monitor; and
- c. the permittee of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

10. [60.482-8] STANDARDS: PUMPS AND VALVES IN HEAVY LIQUID SERVICE, PRESSURE RELIEF DEVICES IN LIGHT LIQUID OR HEAVY LIQUID SERVICE, AND FLANGES AND OTHER CONNECTORS - 40 CFR Part 60, Subpart VV

- a. [60.482-8(a)]
Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors shall be monitored within 5 days by the method specified in 60.485(b) [see section A.V. in Part II] if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method.
 - b. [60.482-8(b)]
If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
 - c. [60.482-8(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 60.482-9 [see section A.II. of Part II]. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
 - d. [60.482-8(d)]
First attempts at repair include, but are not limited to, the best practices described under 60.482-7(e) [see section A.II. of Part II].
11. [60.482-9] STANDARDS: DELAY OF REPAIR - 40 CFR Part 60, Subpart VV
- a. [60.482-9(a)]
Delay of repair of equipment for which leaks have been detected will be allowed if the repair is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown.
 - b. [60.482-9(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. [60.482-9(c)(1)-(2)]
Delay of repair for valves will be allowed if:
 - i. 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
 - ii. when repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with 60.482-10 [see section A.II. of Part II].
 - d. [60.482-9(d)(1)-(2)]
Delay of repair for pumps will be allowed if:

- i. [60.482-10(f)(1)]
If the vapor collection system or closed vent system is constructed of hard-piping, the permittee shall comply with the following requirements: conduct an initial inspection according to the procedures in 60.485(b) [see section A.V. in Part II]; and conduct annual visual inspections for visible, audible, or olfactory indications of leaks.
 - ii. [60.482-10(f)(2)]
If the vapor collection system or closed vent system is constructed of ductwork, the permittee shall conduct an initial inspection according to the procedures in 60.485(b) [see section A.V. in Part II] and conduct annual inspections according to the procedures in 60.485(b) [see section A.V. in Part II].
- g. [60.482-10(g)]
Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in paragraph h. of this section. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected.
- h. [60.482-10(h)]
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.
- i. [60.482-10(i)]
If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of paragraphs f.i. and f.ii. of this section.
- j. [60.482-10(j)(1)-(2)]
Any parts of the closed vent system that are designated, as described in 60.482-10(i)(1) [see section A.III. of Part II], as unsafe to inspect are exempt from the inspection requirements of paragraphs f.i. and f.ii. of this section if they comply with the requirements specified in paragraphs j.i. and j.ii. of this section:
 - i. 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 paragraphs f.i. or f.ii. of this section; and
 - ii. the permittee has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

- k. [60.482-10(k)(1)-(3)]

Any parts of the closed vent system that are designated, as described in 60.482-10(l)(2) [see section A.III. of Part II] of this section, as difficult to inspect are exempt from the inspection requirements of paragraphs f.i. and f.ii. of this section if they comply with the requirements specified in paragraphs k.i. through k.iii. of this section:

 - i. the permittee determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and
 - ii. the process unit within which the closed vent system is located becomes an affected facility through 40 CFR Part 60.14 or 60.15, or the permittee designates less than 3.0 percent of the total number of closed vent system equipment as difficult to inspect; and
 - iii. 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.
- l. [60.482-10(m)]

Closed vent systems and control devices used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.
- 13. [60.483-1] ALTERNATIVE STANDARDS FOR VALVES - ALLOWABLE PERCENTAGE OF VALVES LEAKING - 40 CFR Part 60, Subpart VV
 - a. [40.483-1(a)]

The permittee may elect to comply with an allowable percentage of valves leaking of equal to or less than 2.0 percent.
 - b. [40.483-1(b)]

The following requirements shall be met if the permittee wishes to comply with an allowable percentage of valves leaking:
 - c. The permittee must notify the Director and Administrator that the permittee has elected to comply with the allowable percentage of valves leaking before implementing this alternative standard, as specified in 60.487(b) [see section A.II. in Part II].
 - i. A performance test as specified in paragraph c. of this section shall be conducted initially upon designation, annually, and at other times requested by the Director and Administrator.
 - ii. If a valve leak is detected, it shall be repaired in accordance with 60.482-7(d) and (e) [see section A.II. in Part II].

- d. [40.483-1(c)]
Performance tests shall be conducted in the following manner:
 - i. All valves in gas/vapor and light liquid service within the affected facility shall be monitored within 1 week by the methods specified in 60.485(b) [see section A.V. in Part II].
 - ii. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
 - iii. 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 affected facility.
- e. [40.483-1(d)]
Permittees who elect to comply with this alternative standard shall not have an affected facility with a leak percentage greater than 2.0 percent.

14. [60.483-2] ALTERNATIVE STANDARDS FOR VALVES - SKIP PERIOD LEAK DETECTION AND REPAIR - 40 CFR Part 60, Subpart VV

- a. [60.483-2(a)]
The permittee may elect to comply with one of the alternative work practices specified in paragraphs b.ii. and b.iii. of this section. The permittee must notify the Director and Administrator before implementing one of the alternative work practices, as specified in 40 CFR Part 60.487(b).
- b. [60.483-2(b)(1)-(6)]
The permittee shall comply initially with the requirements for valves in gas/vapor service and valves in light liquid service, as described in 60.482-7 [see section A.II. in Part II].
 - i. After 2 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, the permittee may begin to skip 1 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.
 - ii. After 5 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, the permittee may begin to skip 3 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.
 - iii. If the percent of valves leaking is greater than 2.0, the permittee shall comply with the requirements as described in 60.482-7 [see section A.II. in Part II], but can again elect to use this section.
 - iv. The percent of valves leaking shall be determined by dividing the sum of valves found leaking during current monitoring and valves for which repair has been delayed by the total number of valves subject to the requirements of this section.

- v. The permittee must keep a record of the percent of valves found leaking during each leak detection period.

15. [60.484] EQUIVALENCE OF MEANS OF EMISSION LIMITATION - 40 CFR Part 60, Subpart VV

- a. [60.484(a)]
Each permittee subject to the provisions of this subpart may apply to the Director and Administrator for determination of equivalence for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in this subpart.
- b. [60.484(b)(1)-(3)]
Determination of equivalence to the equipment, design, and operational requirements of this subpart will be evaluated by the following guidelines:
 - i. Each permittee applying for an equivalence determination shall be responsible for collecting and verifying test data to demonstrate equivalence of means of emission limitation.
 - ii. The Director and Administrator will compare test data for the means of emission limitation to test data for the equipment, design, and operational requirements.
 - iii. The Director and Administrator may condition the approval of equivalence on requirements that may be necessary to assure operation and maintenance to achieve the same emission reduction as the equipment, design, and operational requirements.
- c. [60.484(c)(1)-(6)]
Determination of equivalence to the required work practices in this subpart will be evaluated by the following guidelines:
 - i. Each permittee applying for a determination of equivalence shall be responsible for collecting and verifying test data to demonstrate equivalence of an equivalent means of emission limitation.
 - ii. For each affected facility for which a determination of equivalence is requested, the emission reduction achieved by the required work practice shall be demonstrated.
 - iii. For each affected facility, for which a determination of equivalence is requested, the emission reduction achieved by the equivalent means of emission limitation shall be demonstrated.

- iv. Each permittee applying for a determination of equivalence shall commit in writing to work practice(s) that provide for emission reductions equal to or greater than the emission reductions achieved by the required work practice.
 - v. The Director and Administrator will compare the demonstrated emission reduction for the equivalent means of emission limitation to the demonstrated emission reduction for the required work practices and will consider the commitment in paragraph (c)(4).
 - vi. The Director and Administrator may condition the approval of equivalence on requirements that may be necessary to assure operation and maintenance to achieve the same emission reduction as the required work practice.
- d. [60.484(d)]
The permittee may offer a unique approach to demonstrate the equivalence of any equivalent means of emission limitation.
- e. [60.484(e)(1)-(3)]
After a request for determination of equivalence is received, the Administrator will publish a notice in the FEDERAL REGISTER and provide the opportunity for public hearing if the Administrator judges that the request may be approved. After notice and opportunity for public hearing, the Administrator will determine the equivalence of a means of emission limitation and will publish the determination in the FEDERAL REGISTER. Any equivalent means of emission limitations approved under this section shall constitute a required work practice, equipment, design, or operational standard within the meaning of section 111(h)(1) of the Clean Air Act.
- f. [60.484(f)(1)-(2)]
Manufacturers of equipment used to control equipment leaks of VOC may apply to the Administrator for determination of equivalence for any equivalent means of emission limitation that achieves a reduction in emissions of VOC achieved by the equipment, design, and operational requirements of this subpart. The Administrator will make an equivalence determination according to the provisions of paragraphs b., c., d., and e. of this section.

III. Monitoring and/or Recordkeeping Requirements

1. [60.482-10(l)] STANDARDS: CLOSED VENT SYSTEMS AND CONTROL DEVICES - 40 CFR Part 60, Subpart VV
The permittee shall record the information specified in paragraphs 1.a. through 1.e. of this section.

- a. [60.482-10(l)(1)]
Identification of all parts of the closed vent 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.
 - b. [60.482-10(l)(2)]
Identification of all parts of the closed vent 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.
 - c. [60.482-10(l)(3)]
For each inspection during which a leak is detected, a record of the information specified in 60.486(c) [see section A.III. of Part II].
 - d. [60.482-10(l)(4)]
For each inspection conducted in accordance with 60.485(b) [see section A.V. of Part II] 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.
 - e. [60.482-10(l)(5)]
For each visual inspection conducted in accordance with section 60.482-10(f)(i) [see section A.II. of Part II] 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.
2. [60.486] RECORD KEEPING REQUIREMENTS, EQUIPMENT LEAKS - 40 CFR Part 60, Subpart VV
- a. [60.486(a)]
Each permittee subject to the provisions of 40 CFR Part 60, Subpart VV shall comply with the record keeping requirements of this section. A permittee of more than one affected facility subject to the provisions of this subpart may comply with the record keeping requirements for these facilities in one record keeping system if the system identifies each record by each facility.
 - b. [60.486(b)]
When each leak is detected as specified in 60.482-2, 60.482-3, 60.482-7, 60.482-8 and 40 CFR Part 60.483-2 [see section A.II of Part II], the following requirements apply:
 - i. [60.486(b)(1)]
A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.

3. [60.486(b)(2)]
The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 60.482-7(c) [see section A.II. of Part II] and no leak has been detected during those 2 months.
4. [60.486(b)(3)]
The identification on equipment except on a valve, may be removed after it has been repaired.
5. [60.486(c)]
When each leak is detected as specified in 60.482-2, 60.482-3, 60.482-7, 60.482-8 and 40 CFR Part 60.483-2 [see section A.II of Part II], the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:
 - a. [60.486(c)(1)]
The instrument and operator identification numbers and the equipment identification number.
 - b. [60.486(c)(2)]
The date the leak was detected and the dates of each attempt to repair the leak.
 - c. [60.486(c)(3)]
Repair methods applied in each attempt to repair the leak.
 - d. [60.486(c)(4)]
"Above 10,000" if the maximum instrument reading measured by the methods specified in 60.485(a) [see section A.V. of Part II] after each repair attempt is equal to or greater than 10,000 ppm.
 - e. [60.486(c)(5)]
"Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
 - f. [60.486(c)(6)]
The signature of the person (or designate) whose decision it was that repair could not be effected without a process shutdown.
 - g. [60.486(c)(7)]
The expected date of successful repair of the leak if a leak is not repaired within 15 days.
 - h. [60.486(c)(8)]
Dates of process unit shutdown that occur while the equipment is unrepaired.
 - i. [60.486(c)(9)]
The date of successful repair of the leak.

6. [60.486(d)]

The following information pertaining to the design requirements for closed vent systems and control devices described in 60.482-10 [see section A.II. of Part II] shall be recorded and kept in a readily accessible location:

a. [60.486(d)(1)]

Detailed schematics, design specifications, and piping and instrumentation diagrams.

b. [60.486(d)(2)]

The dates and descriptions of any changes in the design specifications.

c. [60.486(d)(3)]

A description of the parameter or parameters monitored, as required in 60.482-10(e) [see section A.II. of Part II], 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.

d. [60.486(d)(4)]

Periods when the closed vent systems and control devices required in 60.482-2, 60.482-3, 60.482-4, and 60.482-5 [see section A.II. of Part II] are not operated as designed, including periods when a flare pilot light does not have a flame.

e. [60.486(d)(5)]

Dates of startups and shutdowns of the closed vent systems and control devices required in 60.482-2, 60.482-3, 60.482-4, and 60.482-5 [see section A.II. of Part II].

f. [60.486(e)]

The following information pertaining to all equipment subject to the requirements in 60.482-1 to 60.482-10 [see section A.II. of Part II] shall be recorded in a log that is kept in a readily accessible location:

i. [60.486(e)(1)]

A list of identification numbers for equipment subject to the requirements of 40 CFR Part 60, Subpart VV.

ii. [60.486(e)(2)]

A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 60.482-2(e), 60.482-3(i) and 60.482-7(f) [see section A.II. of Part II]. The designation of equipment subject to the requirements of 60.482-2(e), 60.482-3(i), or 60.482-7(f) [see section A.II. of Part II] shall be signed by the permittee.

iii. [60.486(e)(3)]

A list of equipment identification numbers for pressure relief devices required to comply with 60.482-4 [see section A.II. of Part II].

- ii. an analysis demonstrating the design capacity of the affected facility;
 - iii. 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
 - iv. an analysis demonstrating that equipment is not in VOC service.
- j. [60.486(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. [60.486(k)]
The provisions of 40 CFR Part 60.7(b) and (d) do not apply to affected facilities subject to 40 CFR Part 60, Subpart VV.
4. In accordance with OAC rule 3745-21-09(T), the permittee shall comply with the following monitoring and record keeping requirements, at a minimum:
- a. For all emissions units which are subject to VOC leaks:
 - i. Annual monitoring of all pump seals and process drains in accordance with section A.V.
 - ii. Quarterly monitoring of all compressor seals and pressure relief valves in gas service in accordance with the methods and procedures in section A.V.;
 - iii. Visual monitoring of all pump seals each month;
 - iv. Monitoring of any pump seal in accordance with the methods and procedures in section A.V within five working days after the seal has vented to the atmosphere ;
 - v. Monitoring of any relief valve in accordance with the methods and procedures in section A.V within five working days after the valve has vented to the atmosphere ; and,
 - vi. Monitoring of any component in accordance with the methods and procedures in section A.V within five working days after the repair of a leak.
 - b. Pressure relief devices which are connected to an operating flare header, vapor recovery devices, storage tank valves and valves which are not externally regulated are exempt from the monitoring requirements in sections A.III.7.a through A.III.7.f.
 - c. All pressure relief valves in gas service shall be clearly marked and identified in such a manner that they will be obvious to both refinery personnel performing monitoring.

- d. For any pressure relief valves in gas or liquid service, the permittee may employ an alternative monitoring schedule as outlined below:
 - i. The valve is designated as difficult to monitor and is monitored each calendar year, provided;
 - (a) Construction of the process unit commenced prior to March 27, 1981
 - (b) The permittee demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than six feet above a support surface; and
 - (c) The permittee has a written plan that requires monitoring of the valve at least once per year;
 - ii. The valve is designated as unsafe to monitor and is monitored as frequently as practical during safe to monitor times, provided the following conditions are met:
 - (a) The permittee demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of monitoring on a quarterly or yearly basis as specified in section A.III.7.a.
 - (b) The permittee adheres to a written plan that requires monitoring of the valve as frequently as practical during process unit turnarounds and other safe to monitor times;
- e. If a leak is identified as the result of the monitoring program and the concentration of VOC exceeds 10,000 ppmv, a tag shall immediately be placed on the leaking component. The tag shall be readily visible and weatherproof; it shall bear an ID number, and it shall clearly indicate the date the leak was detected. The tag shall remain in place until the leaking component is repaired;
- f. A monitoring log shall be maintained for all leaking components which are tagged. The log shall contain, at a minimum, the following data:
 - i. the name of the process unit where the leaking component is located;
 - ii. the type of leaking component;
 - iii. the tag number of the leaking component;
 - iv. the date on which each leak was detected and repaired;

- v. the date and results of the monitoring performed within 5 working days after the leaking component was repaired;
 - vi. a record of the calibration of the monitoring instrument;
 - vii. a list of those leaking components which cannot be repaired until the next process unit turnaround; and
 - viii. the total number of components monitored and the total number of components found leaking during the calendar year;
- g. A copy of any monitoring log shall be retained by the permittee for a minimum of two years after the date on which the record was made or the report was prepared;
 - h. A copy of any monitoring log shall immediately be made available to the director or an authorized representative upon verbal or written request, at any reasonable time;

IV. Reporting Requirements

- 1. [60.487] REPORTING REQUIREMENTS, EQUIPMENT LEAKS - 40 CFR Part 60, Subpart VV
 - a. [60.487(a)]
Each permittee subject to the provisions of this subpart shall submit semiannual reports to the Director and Administrator beginning six months after the initial start-up date.
 - b. [60.487(c)(1) - (4)]
All semiannual reports to the Director and Administrator shall include the following information, summarized from the information in 60.486 [see section A.III. of Part II]:
 - i. [60.487(c)(1)]
Process unit identification.
 - ii. [60.487(c)(2)]
For each month during the semiannual reporting period:
 - (a) number of valves for which leaks were detected as described in 60.482(7)(b) [see section A.II. in Part II];
 - (b) number of valves for which leaks were not repaired as required in paragraph 60.482-7(d)(1) [see section A.II. in Part II];
 - (c) number of pumps for which leaks were detected as described in 60.482-2(b) and (d)(6)(i) [see section A.II. in Part II];

- (d) number of pumps for which leaks were not repaired as required in 60.482-2(c)(1) and (d)(6)(ii) [see section A.II. in Part II];
 - (e) the facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.
 - iii. [60.487(c)(3)]
Dates of process unit shutdowns which occurred within the semiannual reporting period.
 - iv. [60.487(c)(4)]
Revisions to items reported according to 40 CFR Part 60.487(b) if changes have occurred since the initial report or subsequent revisions to the initial report.
 - c. [60.487(d)]
The permittee electing to comply with the provisions of 40 CFR Part 60.483-1 and 60.483-2 shall notify the Director and Administrator of the alternative standard selected 90 days before implementing either of the provisions.
 - d. [60.487(e)]
The permittee shall report the results of all performance tests in accordance with 40 CFR Part 60.8 of the General Provisions. The provisions of 40 CFR Part 60.8(d) do not apply to affected facilities subject to the provisions of 40 CFR Part 60, Subpart VV except that the permittee must notify the Director and Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests.
 - 2. In accordance with OAC rule 3745-21-09(T), for all emissions units which are subject to VOC leaks, the permittee shall submit to the director by the 15th day of January, April, July, and October that gives the total number of components monitored during the previous three calendar months, gives the total number of components found leaking during the previous three calendar months, identifies all components which were found leaking during the previous three calendar months but which were not repaired within 15 days, and identifies all leaking components which cannot be repaired until the next process unit turnaround.
 - 3. The permittee may be subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers, 40 CFR Part 63, Subpart DDDDD, Reciprocating Internal Combustion Engines (RICE), 40 CFR Part 63, Subpart ZZZZ, and Organic Liquids Distribution, 40 CFR Part 63, Subpart EEEE. U.S. EPA failed to promulgate this standard by May 15, 2002, the Maximum Achievable Control Technology (MACT) hammer date. In accordance with 40 CFR Part 63, Subpart B (40 CFR Parts 63.50 through 63.56), the permittee shall submit an application to revise the permit to include equivalent emission limitations as a result of a case-by-case MACT determination. The application shall be submitted in two parts. The deadline to submit the Part I application, as specified in 40 CFR Part 63.53, was May 15, 2002.

4. If the final NESHAP standard is not promulgated by the deadline specified by U.S. EPA, the permittee shall submit the Part II application as specified in 40 CFR Part 63.53. The Part II application shall be submitted within 60 days after the deadline to promulgate the respective standard or by May 15, 2003, whichever is later. It must contain the following information, unless otherwise specified by future U.S. EPA regulations:
 - a. for a new affected source, the anticipated date of startup of operation;
 - b. the hazardous air pollutants (HAPs) emitted by each affected source in the relevant source category and an estimated total uncontrolled and controlled emission rate for HAPs from the affected source;
 - c. any existing federal, State, or local limitations or requirements applicable to the affected source;
 - d. for each affected emission point or group of affected emission points, an identification of control technology in place;
 - e. information relevant to establishing the MACT floor (or MACT emission limitation), and, at the option of the permittee, a recommended MACT floor; and
 - f. any other information reasonably needed by the permitting authority including, at the discretion of the permitting authority, information required pursuant to Subpart A of 40 CFR Part 63.

5. The Part II application for a MACT determination may, but is not required to, contain the following information:
 - a. recommended emission limitations for the affected source and support information (the permittee may recommend a specific design, equipment, work practice, or operational standard, or combination thereof, as an emission limitation);
 - b. a description of the control technologies that would be applied to meet the emission limitation, including technical information on the design, operation, size, estimated control efficiency and any other information deemed appropriate by the permitting authority, and identification of the affected sources to which the control technologies must be applied; and
 - c. relevant parameters to be monitored and frequency of monitoring to demonstrate continuous compliance with the MACT emission limitation over the applicable reporting period.

6. If the NESHAP is promulgated before the Part II application is due for the relevant source category, the permittee may be subject to the rule as an existing major source with a compliance date as specified in the NESHAP. If subject, the permittee shall submit the following notifications:
 - a. Unless otherwise specified in the relevant Subpart, within 120 days after promulgation of a 40 CFR Part 63 Subpart to which the source is subject, the permittee shall submit an Initial Notification Report that contains the following information, in accordance with 40 CFR Part 63.9(b)(2):
 - i. the name and mailing address of the permittee;
 - ii. the physical location of the source if it is different from the mailing address;
 - iii. identification of the relevant MACT standard and the source's compliance date;
 - iv. a brief description of the nature, design, size, and method of operation of the source, and an identification of the types of emission points within the affected source subject to the relevant standard and the types of HAPs emitted; and
 - v. a statement confirming the facility is a major source for HAPs.
 - b. Unless otherwise specified in the relevant Subpart, within 60 days following completion of any required compliance demonstration activity specified in the relevant Subpart, the permittee shall submit a notification of compliance status that contains the following information:
 - i. the methods used to determine compliance;
 - ii. the results of any performance tests, visible emission observations, continuous monitoring systems performance evaluations, and/or other monitoring procedures or methods that were conducted;
 - iii. the methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements and test methods;
 - iv. the type and quantity of HAPs emitted by the source, reported in units and averaging times in accordance with the test methods specified in the relevant Subpart;
 - v. an analysis demonstrating whether the affected source is a major source or an area source;

- vi. a description of the air pollution control equipment or method for each emission point, including each control device or method for each HAP and the control efficiency (percent) for each control device or method; and
- vii. a statement of whether or not the permittee has complied with the requirements of the relevant Subpart.

V. Testing Requirements

1. [60.485] TEST METHODS AND PROCEDURES, LEAK DETECTION - 40 CFR Part 60, Subpart VV
 - a. [60.485(a)]

In conducting the performance tests required in 40 CFR Part 60.8, the permittee shall use as reference methods and procedures the test methods in Appendix A of this part or other methods and procedures as specified in this section, except as provided in 40 CFR Part 60.8(b).
 - b. [60.485(b)]

The permittee shall determine compliance with the standards in 60.482, 60.483, and 60.484 [see section A.II. in Part II] as follows. 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 Method 21. The following calibration gases shall be used:

 - i. [60.485(b)(1)(i)]

zero air (less than 10 ppm of hydrocarbon in air); and
 - ii. [60.485(b)(1)(ii)]

a mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane.
 - c. [60.485(c)]

The permittee shall determine compliance with the no detectable emission standards in 60.482-2(e), 60.482-3(i), 60.482-4, 60.482-7(f) and 60.482-10(e) [see section A.II. in Part II] as follows:

 - i. The requirements of paragraph (b) shall apply. 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. [60.485(d)]

The permittee shall test each piece of equipment unless he demonstrates that a process unit is not in VOC series, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used:

 - i. [60.485(d)(1)]

Procedures that conform to the general methods in ASTM E-260, E-168, E-169 (incorporated by reference-see 40 CFR Part 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment.
 - ii. [60.485(d)(2)]

Organic compounds that are considered by the Director and 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.
 - iii. [60.485(d)(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 Director and Administrator disagree with the judgment, paragraphs d.i. and d.ii. of this section shall be used to resolve the disagreement.
- e. [60.485(e)]

The permittee shall demonstrate that an equipment is in light liquid service by showing that all the following conditions apply:

 - i. [60.485(e)(1)]

The vapor pressure of one or more of the components is greater than 0.3 kPa at 20°C. Standard reference texts or ASTM D-2879 (incorporated by reference-see 40 CFR Part 60.17) shall be used to determine the vapor pressures.
 - ii. [60.485(e)(2)]

The total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20°C is equal to or greater than 20 percent by weight.
 - iii. [60.485(e)(3)]

The fluid is a liquid at operating conditions.
- f. [60.485(f)]

Samples used in conjunction with paragraphs d., e., and g. of this section shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare.

- g. [60.485(g)]
The permittee shall determine compliance with the standards of flares as follows:
- i. [60.485(g)(1)]
Method 22 shall be used to determine visible emissions.
 - ii. [60.485(g)(2)]
A thermocouple or any other equivalent device shall be used to monitor the presence of a pilot flame in the flare.
 - iii. [60.485(g)(3)]
The maximum permitted velocity (V_{max}) for air-assisted flares shall be computed using the following equation:
$$V_{max} = 8.706 + 0.7084 H_T$$

where:
 V_{max} = maximum permitted velocity, m/sec.
 H_T = net heating value of the gas being combusted, MJ/scm.
 - iv. [60.485(g)(4)]
The net heating value (H_T) of the gas being combusted in a flare shall be computed using the equation found in 40 CFR Part 60.685(g)(4).
 - v. [60.485(g)(5)]
Method 18 and ASTM D 2504-67 (incorporated by reference-see 40 CFR Part 60.17) shall be used to determine the concentration of sample component "i."
 - vi. [60.485(g)(6)]
ASTM D 2382-76 (incorporated by reference-see 40 CFR Part 60.17) shall be used to determine the net heat of combustion of component "i" if published values are not available or cannot be calculated.
 - vii. [60.485(g)(7)]
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.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P022 - VOC EMISSIONS FROM THE CRUDE UNIT, FCC UNIT, AND VACUUM UNIT RESULTING FROM THE 2003/2004 TAR PROJECT	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None