Ohio Environmental Protection Agency
John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

6/25/2012

Certified Mail

Facility ID: 0448010246
Permit Number: P0104231
County: Lucas

Elaine Moore
Toledo Refining Company, LLC.
1819 Woodville Road
Oregon, OH 43616

RE: FINAL AIR POLLUTION CONTROL TITLE V PERMIT
Permit Type: Renewal

Dear Permit Holder:

Enclosed is the Title V permit that allows you to operate the facility in the manner indicated in the permit. Because this permit may contain several conditions and restrictions, we urge you to read it carefully. Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

The issuance of this Title V permit is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 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. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of $70.00, made payable to “Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General’s Office, Environmental Enforcement Section. 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, OH 43215

The Ohio EPA is encouraging 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 Compliance Assistance and Pollution Prevention at (614) 644-3469. If you have any questions regarding this permit, please contact the Toledo Department of Environmental Services. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

Michael W. Ahern

Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA Region 5 *Via E-Mail Notification*
Toledo Department of Environmental Services

Ohio | Environmental Protection Agency

FINAL

Division of Air Pollution Control
Title V Permit
for
Toledo Refining Company, LLC.

Facility ID:	0448010246
Permit Number:	P0104231
Permit Type:	Renewal
Issued:	6/25/2012
Effective:	7/16/2012
Expiration:	7/16/2017

Division of Air Pollution Control
Title V Permit
for
Toledo Refining Company, LLC.

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Authorization

Facility ID: 0448010246
Facility Description: Refinery
Application Number(s): A0040519, A0041490, A0041132, A0019248, A0043333, A0043736, A0043228
Permit Number: P0104231
Permit Description: Petroleum refinery Title V renewal.
Permit Type: Renewal
Issue Date: 6/25/2012
Effective Date: 7/16/2012
Expiration Date: 7/16/2017
Superseded Permit Number: P0088110

This document constitutes issuance of an OAC Chapter 3745-77 Title V permit to:

Toledo Refining Company, LLC.
1819 Woodville Road
Oregon, OH 43616

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Toledo Department of Environmental Services
348 South Erie Street
Toledo, OH 43604
(419)936-3015

The above named entity is hereby granted a Title V permit pursuant to Chapter 3745-77 of the Ohio Administrative Code. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. You will be sent a notice approximately 18 months prior to the expiration date regarding the renewal of this permit. If you do not receive a notice, please contact the Toledo Department of Environmental Services. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, if a timely renewal application is submitted. A renewal application will be considered timely if it is submitted no earlier than 18 months (540 days) and no later than 6 months (180 days) prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:

(1) Standard Term and Condition A. 24., Reporting Requirements Related to Monitoring and Record Keeping Requirements of State-Only Enforceable Permit Terms and Conditions

(2) Standard Term and Condition A. 25., Records Retention Requirements for State-Only Enforceable Permit Terms and Conditions

(3) Standard Term and Condition A. 27., Scheduled Maintenance/Malfunction Reporting

(4) Standard Term and Condition A. 29., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(Authority for term: ORC 3704.036(A))

2. Monitoring and Related Record Keeping and Reporting Requirements

a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit), the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

(1) The date, place (as defined in the permit), and time of sampling or measurements.

(2) The date(s) analyses were performed.

(3) The company or entity that performed the analyses.

(4) The analytical techniques or methods used.

(5) The results of such analyses.

(6) The operating conditions existing at the time of sampling or measurement.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))

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 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.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))

c) The permittee shall submit required reports in the following manner:

(1) All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:

Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year in accordance with Standard Term and Condition A.2.c)(2) below; and each report shall cover the previous calendar quarter. An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the owner or operator of the affected air contaminant source or air pollution control equipment complies with the requirements of OAC rule 3745-17-07(A)(3)(c).

In accordance with OAC rule 3745-15-06, a malfunction reportable under OAC rule 3745-15-06(B) is a deviation of the federally enforceable permit requirements. Even though verbal notifications and written reports are required for malfunctions pursuant to OAC rule 3745-15-06, the written reports required pursuant to this term must be submitted quarterly to satisfy the prompt reporting provision of OAC rule 3745-77-07(A)(3)(c).

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any scheduled maintenance, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

(2) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit or, in some cases, in section B. Facility-Wide Terms and Conditions of this Title V permit), all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the probable cause of such deviations, and (c) any corrective actions or preventive

measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as provided below, the written reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

In identifying each deviation, the permittee shall specify the emission limitation(s), operational restriction(s), and/or control device operating parameter limitation(s) for which the deviation occurred, describe each deviation, and provide the estimated magnitude and duration of each deviation.

These written deviation reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. Full compliance with OAC rule 3745-77-07(A)(3)(c) requires reporting of all other deviations of the federally enforceable requirements specified in the permit as required by such rule.

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement satisfies the reporting requirements specified in this Standard Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement will also satisfy (for the deviations so reported) the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations, and additional quarterly deviation reports for that specific emission limitation, operational restriction, or control device parameter limitation are not required pursuant to this Standard Term and Condition.

See A.29 below if no deviations occurred during the quarter.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

(3) All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with Standard Term and Condition A.2)c)(2) above shall be submitted in the following manner:

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; Standard Terms and Conditions: A.3, A.4, A.5, A.7.e), A.8, A.13, A.15, A.19, A.20, A.21, and A.23 of this Title V permit, as well as any deviations from the requirements in section C. Emissions Unit Terms and Conditions of this Title V permit, and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with Standard Term and Condition A.2.c)(2) above shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency by January 31 and July 31 of each year; and each report shall cover the previous six calendar months. Unless otherwise specified by rule, all other deviations from federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally enforceable requirements not specifically addressed by permit or rule for the

insignificant activities or emissions levels (IEU) identified in section B. Facility-Wide Terms and Conditions of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

In identifying each deviation, the permittee shall specify the federally enforceable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation.

These semi-annual and annual written reports shall satisfy the reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with Standard Term and Condition A.2.c)(2) above.

If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such deviations occurred during that period.

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii) and OAC rule 3745-77-07(A)(13)(b))

(4) 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 (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."

(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

(5) Reports of any required monitoring and/or record keeping information shall be submitted to Toledo Department of Environmental Services.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

3. Scheduled Maintenance

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in Standard Term and Condition A.2.c)(1) above.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

4. Risk Management Plans

If applicable, the permittee shall 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"); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

a) a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or

b) as part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

(Authority for term: OAC rule 3745-77-07(A)(4))

5. 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.

(Authority for term: OAC rule 3745-77-07(A)(5))

6. 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.

(Authority for term: OAC rule 3745-77-07(A)(6))

7. 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, in accordance with Standard Term and Condition A.11 below. 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. Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable when:

(1) the permittee submits an approved facility-wide potential to emit analysis supporting a claim that the facility no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on the permanent shutdown and removal of one or more emissions units identified in this permit; or the permittee no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable ; or a combination of (1) and (2) above.

The permittee shall continue to comply with all applicable OAC Chapter 3745-31 requirements for all regulated air contaminent sources once this permit ceases to be enforceable. The permittee shall comply with any residual requirements, such as quarterly deviation reports, semi-annual deviation reports, and annual compliance certifications covering the period during which this Title V permit was enforceable. All records relating to this permit must be maintained in accordance with law.

(Authority for term: OAC rule 3745-77-01(W), OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77(A)(7))

8. 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.

(Authority for term: OAC rule 3745-77-07(A)(8))

9. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

(Authority for term: OAC rule 3745-77-07(A)(9))

10. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these standard terms and conditions shall apply to all operating scenarios authorized in this permit.

(Authority for term: OAC rule 3745-77-07(A)(10))

11. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

a) Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.

b) This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.

c) The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.

d) The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))

12. 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.

(Authority for term: OAC rule 3745-77-07(B))

13. Compliance Requirements

a) Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V 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:

(1) 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.

(2) 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 paragraph (E) of OAC rule 3745-77-03.

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

(4) 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:

(1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

(2) 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.

d) Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:

(1) Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted (i.e., postmarked) on or before April 30th of each year during the permit term.

(2) Compliance certifications shall include the following:

a. An identification of each term or condition of this permit that is the basis of the certification.

b. The permittee's current compliance status.

c. Whether compliance was continuous or intermittent.

d. The method(s) used for determining the compliance status of the source currently and over the required reporting period.

e. Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.

(3) Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))

14. Permit Shield

a) Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.

b) This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

(Authority for term: OAC rule 3745-77-07(F))

15. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

(Authority for term: OAC rules 3745-77-07(H)(1) and (2))

16. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

(Authority for term: OAC rule 3745-77-07(G))

17. Off-Permit Changes

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

a) The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.

b) The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as insignificant emissions levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.

c) The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).

d) The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e) The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit-to-install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(Authority for term: OAC rule 3745-77-07(I))

18. Compliance Method Requirements

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.

(This term is provided for informational purposes only.)

19. Insignificant Activities or Emissions Levels

Each IEU that has one or more applicable requirements shall comply with those applicable requirements.

(Authority for term: OAC rule 3745-77-07(A)(1))

20. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

(Authority for term: OAC rule 3745-77-07(A)(1))

21. 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.

(Authority for term: OAC rule 3745-77-07(A)(1))

22. Permanent Shutdown of an Emissions Unit

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification from the responsible official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the responsible official that the emissions unit was permanently shut down.

After the date on which an emissions unit is permanently shut down (i.e., that has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31 and therefore ceases to meet the definition of an "emissions unit" as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any Title V permit requirements applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

No emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.

(Authority for term: OAC rule 3745-77-01)

23. Title VI Provisions

If applicable, the permittee shall comply with the standards for recycling and reducing emissions of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 CFR 82.156.

b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment specified in 40 CFR 82.158.

c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

(Authority for term: OAC rule 3745-77-01(H)(11))

24. Reporting Requirements Related to Monitoring and Record Keeping Requirements Under State Law Only

The permittee shall submit required reports in the following manner:

a) Reports of any required monitoring and/or record keeping 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 (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) 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. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. 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 (i.e., postmarked) quarterly, 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.)

25. Records Retention Requirements Under State Law Only

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.

26. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. 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 verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

(Authority for term: OAC rule 3745-77-07(C))

27. 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 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. 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 emissions unit(s) that is (are) served by such control system(s).

28. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

(Authority for term: OAC rule 3745-77-01(C))

29. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation 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 (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

The permittee is not required to submit a quarterly report which states that no deviations occurred during that quarter for the following situations:

a) where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in Standard Term and Condition A.2.c)(2); or

b) where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potentials to emit; or

c) where the company's responsible official has certified that an emissions unit has been permanently shut down.

B. Facility-Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

   a) B.15, B.21 and B.22.

2. The following emissions units contained in this permit are subject to 40 CFR, Part 63, Subpart F, National Emission Standards for Hazardous Air Pollutants: Synthetic Organic Chemical Manufacturing Industry: J001, J002, P013, P014, P031,T028, T098, T099, T101,T153, T154 and T157. The complete MACT requirements, including the MACT General Provisions may be accessed via the internet from the Electronic Code of federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the appropriate Ohio EPA District office or local air agency.

   [40 CFR, Part 63, Subpart F]

3. The following emissions units contained in this permit are subject to 40 CFR, Part 63, Subpart G, National Emission Standards for Hazardous Air Pollutants: Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater: J001, J002, P014, P016 (if loading benzene), P031, T028, T091, T098, T099, T101, T111, T153, T154 and T157. The complete MACT requirements, including the MACT General Provisions may be accessed via the internet from the Electronic Code of federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the appropriate Ohio EPA District office or local air agency.

   [40 CFR, Part 63, Subpart G]

4. The following emissions units contained in this permit are subject to 40 CFR, Part 63, Subpart H, National Emission Standards for Hazardous Air Pollutants: Equipment Leaks: J001, J002, P008, P013, P014, P016 (if loading benzene), P031, P801, T028, T037, T047, T091, T098, T099, T101, T153, T154 and T157. The complete MACT requirements, including the MACT General Provisions may be accessed via the internet from the Electronic Code of federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the appropriate Ohio EPA District office or local air agency.

   [40 CFR, Part 63, Subpart H]

5. The following emissions units contained in this permit are subject to 40 CFR, Part 63, Subpart CC, National Emission Standards for Hazardous Air Pollutants: Petroleum Refineries: J006, P008, P009, P017, P019, P020, P023, P024,P025, P026, P027, P034, P037, P038, P039, P042, P043, P044, P045, P046, P801, T001, T003, T004, T005, T006, T007, T008, T009, T010, T013, T015, T016, T019, T021, T022, T023, T024, T025, T026, T029, T036, T037, T038, T039, T040, T041, T042, T043, T044, T045, T047, T051, T053, T054, T058, T059, T060, T061, T062, T063, T064, T065, T066, T067, T068, T069, T070, T072, T075, T079, T081, T082, T085, T088, T089, T090, T091, T092. T093, T100, T110, T113, T124, T125, T127, T128, T149, T150, T158, T161 and T162. The complete MACT requirements, including the MACT General Provisions may be accessed via the internet from the Electronic Code of federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the appropriate Ohio EPA District office or local air agency.

   [40 CFR, Part 63, Subpart CC]

6. The following emissions units contained in this permit are subject to 40 CFR, Part 63, Subpart UUU, National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units: P011, P012, P037, P038 and P041. The

complete MACT requirements, including the MACT General Provisions may be accessed via the internet from the Electronic Code of federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the appropriate Ohio EPA District office or local air agency.

[40 CFR, Part 63, Subpart UUU]

7. The permittee is subject to the applicable emission limitation(s) and/or control measures, operational restrictions, monitoring and/or record keeping requirements, reporting requirements, testing requirements and the general and/or other requirements specified in 40 CFR Part 63, Subpart DDDDD, in accordance with 40 CFR Parts 63.7480 through 63.7575 (including the Table(s) and Appendix(ices) referenced in Subpart DDDDD).

   The following emissions units in this permit are subject to the aforementioned requirements: B006, B008, B009, B010, B014, B015, B016, B017, B018, B019, B021, B022, B026, B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B048, B050, B051, B052, B053, B054 and B055.

   [40 CFR, Part 63, Subpart DDDDD]

8. The permittee is subject to the applicable requirements of 40 CFR Part 63, Subpart A (General Provisions), as set forth in Table 10 of Subpart DDDDD.

The following emissions units in this permit are subject to the aforementioned requirements: B006, B008, B009, B010, B014, B015, B016, B017, B018, B019, B021, B022, B026, B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B048, B050, B051, B052, B053, B054 and B055.

[40 CFR, Part 63, Subpart A]

9. The following emissions units contained in this permit are subject to 40 CFR, Part 61, Subpart FF, National Emission Standard for Benzene Waste Operations: P017, P039, T003, T005, T075 and T128. The complete NESHAP requirements, including the NESHAP General Provisions may be accessed via the internet from the Electronic Code of federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the appropriate Ohio EPA District office or local air agency.

   [40 CFR, Part 61, Subpart FF]

10. The following emissions units contained in this permit are subject to 40 CFR, Part 60, Subpart J, Standards of Performance for Petroleum Refineries: B006, B008, B009, B010, B014, B015, B016, B017, B018, B019, B021, B022, B026, B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B046, B047, B048, B050, B051, B052, B053, B054, B055, P008, P009 for fuel combustion; P011 for particulate, sulfur dioxide and carbon monoxide emissions; P012 and P041 for sulfur dioxide emissions. The complete NSPS requirements, including the NSPS General Provisions may be accessed via the internet from the Electronic Code of federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the appropriate Ohio EPA District office or local air agency.

    [40 CFR, Part 60, Subpart J]

11. The following emissions units contained in this permit are subject to 40 CFR, Part 60, Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984: T036, T128, T149, T150, T157, T158, T160 and T162. The complete NSPS requirements, including the NSPS General Provisions may be accessed via the internet from the Electronic Code of

federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the appropriate Ohio EPA District office or local air agency.

[40 CFR, Part 60, Subpart Kb]

12. The following emissions units contained in this permit are subject to 40 CFR, Part 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After January 5, 1981, and on or Before November 7, 2006: P028 and P801. The complete NSPS requirements, including the NSPS General Provisions may be accessed via the internet from the Electronic Code of federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the appropriate Ohio EPA District office or local air agency.

    [40 CFR, Part 60, Subpart VV]

13. The following emissions units contained in this permit are subject to 40 CFR, Part 60, Subpart GGG, Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced After January 4, 1983, and on or Before November 7, 2006: P009, P028, P032, P034, P039 and P801. The complete NSPS requirements, including the NSPS General Provisions may be accessed via the internet from the Electronic Code of federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the appropriate Ohio EPA District office or local air agency.

    [40 CFR, Part 60, Subpart GGG]

14. The following emissions units contained in this permit are subject to 40 CFR, Part 60, Subpart QQQ, Standards of Performance for VOC Emissions From Petroleum Refinery Wastewater Systems: P017 andP039. The complete NSPS requirements, including the NSPS General Provisions may be accessed via the internet from the Electronic Code of federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the appropriate Ohio EPA District office or local air agency.

    [40 CFR, Part 60, Subpart QQQ]

15. RECORDKEEPING FOR NETTING PURPOSES AS REQUIRED BY PTI 04-01421 FOR NOx EMISSIONS

    a) For a period of 10 years after the date of startup of emissions unit B055 (July 3, 2007), the emissions increase of nitrogen oxides (NOx), as a summation of the emissions from emissions units B018, B021, B050, B051 and B055, shall not exceed 38.54 tons as a rolling, 12-month summation.

    b) The permittee shall properly install, operate, and maintain equipment to monitor total quantity of refinery fuel gas (in cubic feet) burned in emissions units B018, B021, B050, B051 and B055. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s) with any modifications deemed necessary by the permittee.

    c) The permittee shall maintain monthly records of the quantities of refinery fuel gas (in cubic feet) burned in emissions units B018, B021, B050, B051 and B055.

d) The permittee shall maintain monthly records of the total NOx emissions from emissions units B018, B021, B050, B051 and B055. These emissions shall be calculated as a summation of the quantities of refinery gas burned in each emissions unit (in cubic feet), multiplied by the respective NOx emission factor (in pounds per mmBtu) determined during the most recent stack test which demonstrated compliance with the applicable emissions limitation, multiplied by 950 Btu per cubic foot and divided by 2000 pounds per ton.

e) The permittee shall maintain monthly records of the rolling, 12-month actual emissions of NOx from emissions units B018, B021, B050, B051 and B055 in tons per year.

f) The permittee shall perform monthly calculations of the emissions increase from B018, B021, B050, B051 and B055 as a rolling, 12-month summation of the NOx emissions in tons per year. The emissions increase shall be calculated as:

emissions increase = actual emissions - baseline actual emissions

where:

emissions unit	baseline actual emissions (tons)
B018	78.88
B021	5.27
B050	8.53
B051	88.38
B055	0.00

g) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the emissions increase limitation from B018, B021, B050, B051 and B055. Each report shall be submitted to Toledo Environmental Services (TES) by January 31, April 30, July 31 and October 31 of each year and shall cover the previous 3 month period. If no deviations occurred in the calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during the preceding 3-month period.

h) The above permit conditions assure that the net emissions increase of NOx from the new equipment, and equipment returned to service as part of the Naphtha project associated with PTI 04-01421, does not exceed 38.54 tons of NOx per rolling, 12-month period as established by the contemporaneous netting analysis of the permit application evaluation. This evaluation demonstrated that the net project emissions were less than the New Source Review Significance Level for all criteria pollutants. If the permittee desires to revise the plans regarding the emissions units above, the permittee must submit a new netting analysis including these changes to Toledo Environmental Services re-demonstrating Non-Attainment New Source Review Non-Applicability for NOx. This analysis must be submitted and approved prior to the startup of the operations authorized by PTI 04-01421 and prior to the startup of any new boiler.

i) The permittee shall permanently remove from service emissions units B002 (heater H302), B004 (heater H304), B011 (heater H508), B013 (heater H5101) and P018 (vacuum tower). These shut-downs will result in credible emissions reductions as follows:

emissions unit	CO (tons)	NOx (tons)	PM_{10} (tons)	SO_2 (tons)	VOC (tons)
B002	6.69	25.34	0.55	1.28	0.51
B004	6.98	27.94	0.72	1.34	0.56
B011	5.93	20.11	0.52	0.48	0.46
B013	0	0	0	0	0
P018	0	0	0	337	0

16. RECORDKEEPING FOR NETTING PURPOSES AS REQUIRED BY PTI 04-01447 [P0108943] FOR VOC

a) The permittee shall monitor the emissions of VOC that are emitted by any emissions units associated with the FCCU expansion permit to install P0108943, (B046, B047, J006, P009, P011, P012, P017, P040, P041, P801, refinery fuel burning equipment, Plant 6 and Plant 8 cooling towers, storage tanks and loading racks); and calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five years following resumption of regular operations after the change, or for a period of ten years following resumption of regular operations after the change if the NSR project increases the design capacity or potential to emit of that regulated NSR pollutant at such emissions unit.

b) If the unit is an existing unit, the permittee shall submit a report to Toledo Environmental Services if the annual emissions, in tons per year, from the FCCU expansion project (PTI P0108943), exceed the baseline actual emissions (as documented and maintained pursuant to paragraph (A)(1)(c) of OAC rule 3745-31-10, by a significant amount for that regulated NSR pollutant, and if such emissions differ from the preconstruction projection as documented and maintained pursuant to paragraph (A)(1)(c) of OAC rule 3745-31-10. The permittee's pre-construction projection is listed in Table 1 below. Such report shall be submitted to Toledo Environmental Services within 60 days after the end of such year. The report shall contain the following:

(1) The name, address and telephone number of the major stationary source;

(2) The annual emissions as calculated pursuant to a) above; and

(3) Any other information that the permittee wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection).

Table 1 Pre-construction Projections from PTI 04-01447

	Baseline Actual Emis. (tons/yr)	*Potential Emissions **Proj. Actual Emis. (tons/yr)	Incremental Difference (tons/yr)
	VOC	VOC	VOC
New & Modified Sources *			
FCC WGS Stack (P011)	see CO boiler	see CO boiler	0.00
CO Boiler worst case fuel combination (emitted through WGS Stack) (B046 & B047)	5.15	16.06	10.91
New SRU, including combustion (P041)	0	7.68	7.68
Fugitive components (P801)	246.46	256.61	10.15
Cooling Towers (P040)	0	0.37	0.37
PP Mix Railcar Loading Rack Additional Loading Arms (J006)	0.03	1.58	1.55
Emissions from Associated Units **			
Existing SRU, including combustion (P012)	1.08	1.75	0.67
Plant 4 Flare (P009)	3.53	3.68	0.15
Heater combustion			
H-6306 (B055)	0.61	0.95	0.34
H-603 (B017)	0.55	0.55	0.00
H-604 (B050)	1.10	1.77	0.67
H-6104 (B018)	1.87	2.36	0.49
H-311 (B051)	5.72	6.50	0.78
H-501-4 (B006 – B009)	3.05	3.90	0.85
H-507 (B010)	2.50	2.99	0.49
H-601A (B014)	0.50	0.95	0.45
H-601B (B015)	0.51	0.97	0.46
H-602 (B016)	0.42	0.80	0.38
H-6305 (B023) will be demolished	0.06	0.00	0.00
H-9101 (B025) not operated post exp.	5.69	0.00	0.00
H-9201 (B026)	1.38	1.74	0.36
H-9202 (B027)	0.81	1.03	0.22
H-9203 (B028)	0.10	0.13	0.03
H-9251 B029)	0.80	1.01	0.21
H-9252A&B (B030 & B031)	2.76	3.49	0.73
H-9302 (B032)	2.25	2.64	0.39
H-9301 (B033)	4.81	5.63	0.82
H-9303 (B034)	1.06	1.24	0.18
H-9304 (B035	0.40	0.47	0.07
H-1910 (#10 Boiler) not operated post exp.	3.31	0.00	0.00
H-9501	0.00	0.00	0.00
H-9502	0.00	0.00	0.00
Plant 6 Cooling Towers (P045)	3.13	3.39	0.26
Plant 8 Cooling Towers (P045)	4.99	5.36	0.37
Storage Tanks - based on storage material			
Crude	7.65	11.81	4.16
Gasoline - finished	0.94	1.41	0.47
Gasoline - components	1.42	2.13	0.71
Diesel	0.48	0.88	0.40
Jet	1.22	2.84	1.62
FCC Feed - Heavy Gas Oil*	1.67	1.74	0.07
9-2 Feed - Light Gas Oil*	0.50	0.96	0.45
Naphtha*	0.00	0.09	0.09
Benzene	0.03	0.08	0.05
Toluene	0.14	0.17	0.03
Xylene	0.06	0.09	0.02
Slurry	0.01	0.01	0.00
Loading Racks (other than PP Mix Railcar Loading)			
HARF/SLURRY/CSO, truck and rail	0.18	0.30	0.12
Benzene, rail	0.16	0.16	0.00
Toluene, rail	11.32	11.33	0.01
xylene, rail	2.20	2.20	0.00
propane, truck	9.44	10.53	1.09
Naphtha Simplification Project	2.06	5.87	3.81
Expansion Project Totals	**332.53**	**381.61**	**49.33**

NOTE: Credits are not included in this table.

17. For the tank seal inspections, "annual" shall mean "during the calendar year" and "12 months" shall mean "during the previous 12 months", e.g., August to August.

    [Authority for term: OAC rule 3745-77-07(C)(1)]

[Authority for term: OAC rule 3745-77-07(C)(1)]

18. [OAC rule 3745-21-09(M)(3)] PROCESS UNIT TURNAROUNDS

    a) [OAC rule 3745-21-09(M)(3)(a)]
    Each permittee of a petroleum refinery shall control the emissions of VOC from process unit turnarounds by combusting the vapors as fuel gas or by flaring the vapors until the pressure in the process vessel is 19.7 pounds per square inch absolute or less.

    b) [OAC rule 3745-21-09(M)(3)(b)]
    The permittee shall maintain records for a minimum of two years for each process unit turnaround. Such records shall include:

    (1) the date the unit was shut down;

    (2) the approximate pressure of the vapors in the process vessel when the VOC emissions were first discharged to the ambient air; and

    (3) the approximate total quantity of VOC emitted to the ambient air.

19. The following insignificant emission units at this facility must comply with all applicable State and Federal regulations, as well as any emission limitations and/or control requirements contained within the identified permit to install for the emission unit. The insignificant emission units listed below are subject to one or more applicable requirements contained in a permit-to-install or in the SIP-approved versions of OAC Chapters 3745-17, 3745-18 and 3745-21.

    B056 – Babcock & Wilcox 99 mmBtu/hr boiler (Boiler #1), burning natural gas (PBR09251, effective 10/11/11)

    B057 – Babcock & Wilcox 99 mmBtu/hr boiler (Boiler #2), burning natural gas (PBR09251, effective 10/11/11)

    G001 – Refinery Fuel Dispensing Facilities (PBR02212, effective 1/30/2007)

    F001 – Paved and Unpaved Roadways (OAC rule 3745-17-07(B), (B)(4), (B)(5) & (B)(8); 3745-17-08(B), (B)(2);

    T114 - LPG Storage (tank V-4009) (permit to install 04-304, issued 2/20/86);

    T115 - LPG Storage (tank V-4010) (permit to install 04-304, issued 2/20/86);

    T116 - LPG Storage (tank V-4011) (permit to install 04-304, issued 2/20/86);

    T117 - LPG Storage (tank V-4012) (permit to install 04-304, issued 2/20/86);

    T118 - Nonene Corr. Inhibitor (tank V-4026) (permit to install 04-468, issued 5/4/88);

T119 - Press. Tank Gasoline Blending (tank 16019) (permit to install 04-0382, issued 2/25/87);

T121 - Gasoline Additive w/Carbon (tank V-492) (permit to install 04-389, issued 5/28/87);

T122 - Ethyl Mercaptan Tank (permit to install 04-405, issued 6/7/95);

T140 - Dehazer (tank 16029) (permit to install 04-595, issued 3/7/90);

T142 - Hocking Valley Dock - Drips UST (tank 16026) (permit to install 04-680, issued 7/17/91);

T148 - Hocking Valley Dock - Drips UST (tank 16027) (permit to install 04-742, issued 2/5/92);

T151 - UST Slop Oil (tank V6355A) (permit to install 04-802, issued 12/30/92);

T167 - (formerly Z019) - Tank 9403 (40 CFR 61, Subpart FF);

P048 – (formerly Z027) - TF2 Fire Diesel #1 - OAC rule 3745-17-07; 17-11(B) and 18-06(G);

P049 – (formerly Z028) - TF2 Fire Diesel #2 - OAC rule 3745-17-07; 17-11(B) and 18-06(G);

P050 – (formerly Z029) - Security Fire Diesel #1 - OAC rule 3745-17-07; 17-11(B) and 18-06(G);

P051 – (formerly Z030) - Security Fire Diesel #2 - OAC rule 3745-17-07; 17-11(B) and 18-06(G); and

P052 – (Z031) - P/2 Emergency Generator J-021-31 - OAC rule 3745-17-07; 17-11(B) and 18-06(G).

[Authority for term: OAC rule 3745-77-07(A)(13)]

20. The following insignificant emissions units are exempt from permit requirements because they are not subject to any applicable requirements or because they meet the “de minimis” criteria established in OAC rule 3745-15-05:

P010 - E016019 Evaporator;

P053 – 1 Hp lab knock engine;

P054 – 1 Hp lab knock engine;

P055 – 1 Hp lab knock engine;

P056 – 17 Hp emergency electrical generator - fired with propane;

T011 - Tank 29;

T012 - Tank 28;

T048 - Isobutane Spheroid (tank 841);

T057 - Isobutane Spheroid (tank 25);

T109 - Tank 24;

T112 - Tank 9402;

P901 – (formerly Z009) - FCC Catalyst Loading/Unloading Operations;

L001 – (formerly Z010) - Small Parts Cleaners;

T164 – (formerly Z016) - Tank 1603;

T165 – (formerly Z017) - Tank 1605;

T166 – (formerly Z018) - Tank 1710;

T168 – (formerly Z020) - Tank 1712;

T169 – (formerly Z021) - Tank 1713;

T170 – (formerly Z022) - Tank 1716;

T171 – (formerly Z023) - Tank 1708;

T172 – (formerly Z024) - Tank 9201;

T173 – (formerly Z025) - Tank 6301; and

T174 – (formerly Z026) - Tank 9103

[Authority for term: OAC rule 3745-77-07(A)(13)]

C. Emissions Unit Terms and Conditions

1. B046, H-021-03 CO Boiler

Operations, Property and/or Equipment Description:

B046 - 374 million Btu/hr Babcock and Wilcox [H-021-03] CO boiler fired with refinery fuel gas, a mixture of refinery process gas, landfill gas and natural gas; residual (#6) fuel oil, and CO (from the FCC unit – P011) with ultra low NOx burners, SCR and WGS. If the FCC unit is shutdown, emissions from B046 and/or B047 are not required to pass through SCR and WGS.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
While operating as a control unit for the FCCU unit, the following emission limitations apply:		
a.	OAC rule 3745-31-05(A)(3) (PTI 04-01447 issued 9/29/06 and modified on 1/23/07, 2/23/09 1/14/10, 5/28/10, 1/27/2011 and 1/6/2012 - P0108943)	The combined filterable particulate matter (PM) emissions from the FCCU (Emissions Unit P011) and the CO Boilers (B046 and B047) shall not exceed 0.45 pound per thousand pounds of coke-burnoff; The combined sulfur dioxide (SO_2) emissions from P011, B046 and B047 shall not exceed 316 pounds per hour; The combined volatile organic compound (VOC) emissions from the FCCU (Emissions Unit P011) and the CO Boilers (Emissions Units B046 and B047) shall not exceed 3.67 pounds per hour; The combined sulfuric acid (H_2SO_4) mist emissions from the FCCU (P011) and CO Boilers (B046 and B047) shall not exceed 60.07 pounds per hour and 263.11 tons per

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		year, based upon a rolling, 365-day summation of the daily emissions; and See b)(2)a. and b)(2)b.
b.	OAC rule 3745-31-05(D) (PTI 04-01447 issued 9/29/06 and modified on 1/23/07, 2/23/09 1/14/10, 5/28/10, 1/27/2011 and 1/6/2012 - P0108943)	The combined nitrogen oxides (NOx) emissions from P011, B046 and B047 shall not exceed 198.51 tons per year, based upon a rolling, 365-day summation of the daily emissions; The combined filterable particulate matter (PM) emissions from P011, B046 and B047 shall not exceed 165.96 tons per year; The combined sulfur dioxide (SO_2) emissions from P011, B046 and B047 shall not exceed 345.71 tons per year, based upon a rolling, 365-day summation of the daily emissions; The combined volatile organic compounds (VOC) emissions from the FCCU (Emissions Unit P011) and the CO Boilers (Emissions Units B046 and B047) shall not exceed 16.07 tons per year, based upon a rolling, 365-day summation of the daily emissions; See b)(2)a., b)(2)b., b)(2)c. and b)(2)e.
c.	OAC rule 3745-31-10 through 20 (PTI 04-01447 issued 9/29/06 and modified on 1/23/07, 2/23/09 1/14/10, 5/28/10, 1/27/2011 and 1/6/2012 - P0108943)	The combined CO emissions from P011, B046 and B047 shall be reduced by a minimum of 99% control efficiency and shall not exceed 500 parts per million by volume dry (ppmvd) at 0% oxygen as a 1-hour average, or 180 ppmvd at 0% oxygen as a rolling, 365-day average, or 1,087.28 tons per year, based upon a rolling, 365-day summation of the daily emissions; and The combined PM_{10} emissions from P011, B046 and B047 shall be controlled by a minimum of 95% and shall not exceed 0.90 pound per thousand pounds of coke-burnoff or 331.92 tons per year, based upon a rolling, 365-day summation of the daily emissions. See b)(2)a.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack serving this unit shall not exceed 20 % opacity, as a 6-minute average, except as provided by the rule.
e.	OAC rule 3745-17-10(C)(1)	0.14 pound of filterable PM emissions per million Btu of actual heat input
f.	OAC rule 3745-18-54(O)(3)	The combined emissions from P011, B046 and B047 shall not exceed 3.00 pounds of SO_2 per thousand pounds of fresh feed.
g.	OAC rule 3745-21-08(E)	See b)(2)d.
h.	40 CFR 60, Subpart J (40 CFR 60.100-109) [Per the Consent Decree (section G.36.) as entered on March 14, 2006, all heaters and boilers shall become affected facilities subject to the requirements of NSPS Subpart J for fuel gas combustion devices by Dec. 31, 2009.]	See b)(2)f. through b)(2)h.
When the FCCU unit is shutdown or the CO boilers operate alone, the following emission limitations apply when emissions are vented to the existing CO boiler stack:		
i.	OAC rule 3745-31-05(A)(3) (PTI 04-01447 issued 9/29/06 and modified on 1/23/07, 2/23/09 1/14/10, 5/28/10, 1/27/2011 and 1/6/2012 - P0108943)	Filterable plus condensable particulate matter emissions (PM) shall not exceed 2.53 pounds per hour and 11.10 tons per year as a rolling 12-month summation of the monthly emissions; Sulfur dioxide (SO_2) emissions shall not exceed 9.15 pounds per hour (based on NSPS limit of 0.027 lb SO_2/mmBtu) and 40.06 tons per year as a rolling 12-month summation of the monthly emissions; Nitrogen oxides (NOx) emissions shall not exceed 13.60 pounds per hour and 59.57 tons per year as a rolling 12-month summation of the monthly emissions; Volatile organic compounds (VOC) shall not exceed 1.83 pounds per hour and 8.03 tons

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		per year as a rolling 12-month summation of the monthly emissions; and See b)(2)b.
j.	OAC rule 3745-31-05(D) (PTI 04-01447 issued 9/29/06 and modified on 1/23/07, 2/23/09 1/14/10, 5/28/10, 1/27/2011 and 1/6/2012 - P0108943)	Particulate matter emissions less than 10 microns in diameter (PM_{10}) shall not exceed 2.53 pounds per hour and 11.10 tons per year as a rolling 12-month summation of the monthly emissions; Carbon monoxide (CO) emissions shall not exceed 28.00 pounds per hour and 122.64 tons per year as a rolling 12-month summation of the monthly emissions; See b)(2)b. and b)(2)e.
k.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack serving this unit shall not exceed 20 % opacity, as a 6-minute average, except as provided by the rule.
l.	OAC rule 3745-17-10(C)(1)	See b)(2)d.
m.	OAC rule 3745-18-06(D)	See b)(2)d.
n.	OAC rule 3745-21-08(E)	See b)(2)d.
o.	40 CFR 60, Subpart J (40 CFR 60.100-109) [Per the Consent Decree (section G.36.) as entered on March 14, 2006, all heaters and boilers shall become affected facilities subject to the requirements of NSPS Subpart J for fuel gas combustion devices by Dec. 31, 2009.]	See b)(2)f. through b)(2)h.

(2) Additional Terms and Conditions

a. The CO Boilers (Emission Units B046 and B047) operate as control for the FCCU unit (Emissions Unit P011) and have combined emission limitations when the FCCU is operating. The monitoring, recordkeeping, reporting and testing

requirements for the combined emission limits for P011, B046 and B047 are included in the terms and conditions for emissions unit (P011). The combined stack emissions are from the new wet gas scrubber stack.

b. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1), 3745-17-10(C)(1), 3745-18-54(O)(3), 3745-21-08(E), OAC rule 3745-31-05(A), OAC rule 3745-31-05(D), and OAC rules 3745-31-10 through 20.

c. The combined SO_2 emissions from the P011, B046 and B047 shall not exceed 25 ppmvd based on a 365-day rolling average or 50 ppmvd based on a 7-day rolling average, each at 0% oxygen.

d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

e. [Consent Decree (CD), section G.36. & 38. - SO_2 EMISSION REDUCTIONS FROM AND NSPS APPLICABILITY FOR HEATERS AND BOILERS]

As required by the consent decree as entered on March 14, 2006, no later than December 31, 2009, this emissions unit shall become an affected facility subject to the requirements of NSPS Subpart J for fuel gas combustion devices.

For those heaters and boilers that are or become an affected facility under NSPS Subpart J pursuant to the Consent Decree, entry of the Consent Decree and compliance with the relevant monitoring requirements of the Consent Decree shall satisfy the notice requirements of 40 CFR 60.7(a) and the initial performance test requirement of 40 CFR 60.8.

f. [60.104(a)(1)]
The permitee shall not burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H_2S) in excess of 230 mg/dscm (0.10 gr/dscf). The combustion in a flare of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from this paragraph

g. The permittee shall maintain a written quality assurance/quality control plan for the continuous hydrogen sulfide monitoring system, designed to ensure continuous valid and representative readings of hydrogen sulfide emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

[40 CFR 60.13] and [40 CFR Part 60, Appendix F]

h. The continuous emission monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

[40 CFR 60.2] and/or [40 CFR 63.2] and [Appendix F to 40 CFR Part 60]

c) Operational Restrictions

(1) The permittee shall burn only the off-gases from the regeneration of the catalyst in emissions unit P011, natural gas, refinery fuel gas and/or residual fuel oil in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1)]

(2) The permittee shall not burn oil in this emissions unit during periods when emissions are vented to the existing CO Boiler stack.

[Authority for term: OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than the off gases from the regeneration of the catalyst in P011, natural gas, refinery fuel gas, and/or residual fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall perform daily checks, when the emissions unit is in operation and emissions are vented to the existing CO Boiler stack and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the

observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) REFINERY FUEL GAS SAMPLING
The permittee shall collect samples of the refinery fuel gas system Monday through Friday (except holidays) for gas chromatographic analysis or other approved analytical method. Each normal sample point shall be collected at least two times per week in accordance with the schedule developed by the permittee. Each sample shall be collected in a sample bag, bomb, cylinder or similar device suitable for the designated analytical method.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain records on the laboratory method used to conduct compositional analysis of the refinery fuel gas. The method shall be reported to Toledo Environmental Services in the periodic report. Any standard ASTM method may be used.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall maintain daily records of the actual heating value of the refinery fuel gas. The actual heating value (H) of the refinery fuel gas shall be calculated from the results of a fuel gas compositional analysis using gas chromatography and the results maintained in units of Btu/scf.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall maintain records of the average H_2S content (in ppmv) for the refinery fuel gas for each day, and which hydrogen sulfide continuous emissions monitoring system (H_2S CEMS) was used to obtain the data (i.e., from which of the following emissions units: B048, B050, B051, B053, or B054).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) The permittee shall maintain daily records (Monday through Friday) of the average SO_2 emission rate for the refinery fuel gas. The SO_2 emission rate shall be calculated as follows:

ERG = ((14.696)*S*(32)*(1.998))/(H*(10.73)*(520))

Where:

ERG = average SO_2 emission rate, in pounds SO_2 per mmBtu for each day;

14.696 = standard pressure, psia;

S = daily average H_2S content of refinery fuel gas, ppmv;

32 = molecular weight of sulfur, lb per lb-mole;

1.998 = lb of SO_2 per lb sulfur;

H = daily average heat content, Btu/scf (STP at 14.696 psia and 520 ºR);

10.73 = ideal gas constant, psia-cubic feet/lb-mole ºR);

520 = standard temperature, ºR

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-18-04(F)(3)]

(8) For each day during which the permittee burns a fuel other than off gases from the regeneration of the catalyst in P011, natural gas, refinery fuel gas, and residual fuel oil, the permittee shall maintain a record of the type, quantity, sulfur content in pound(s) of sulfur per mmdscf, and heating value in Btu/dscf of the fuel burned.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(9) The permittee shall maintain a record of the dates and times emissions from this emissions unit were vented to the existing CO Boiler stack.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(10) HYDROGEN SULFIDE CEM
The permittee shall maintain on site, the document of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous hydrogen sulfide monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 7. The letter/document of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendix B]

(11) The permittee shall operate and maintain equipment to continuously monitor and record hydrogen sulfide emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

The permittee shall maintain records of data obtained by the continuous hydrogen sulfide monitoring system including, but not limited to:

a. emissions of hydrogen sulfide in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;

b. emissions of hydrogen sulfide, in all units of the applicable standard(s) and in the appropriate averaging period;

c. results of quarterly cylinder gas audits;

d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

f. hours of operation of the emissions unit, continuous hydrogen sulfide monitoring system, and control equipment;

g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous hydrogen sulfide monitoring system;

h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous hydrogen sulfide monitoring system; as well as,

i. the reason (if known) and the corrective actions taken (if any) for each such event in (g) and (h).

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendices B & F]

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than off gases from the regeneration of the catalyst in P011, refinery fuel gas and residual fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit semiannual written reports for the CO Boiler bypass stack that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month periods.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit quarterly deviation (excursion) reports that identify each average SO_2 emission rate, as calculated in d) under REFINERY FUEL GAS, that exceeded the SO_2 daily average emission limitation of 0.027 pound of SO_2 per mmBtu of actual heat input for the burning of refinery fuel gas.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall submit deviation (excursion) reports that identify each day when fuel oil was burned in this emissions unit during periods when emissions were vented to the existing CO Boiler stack. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous hydrogen sulfide monitoring system:

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of hydrogen sulfide emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as, the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).

b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

i. the facility name and address;

ii. the manufacturer and model number of the continuous hydrogen sulfide and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;

v. the total operating time (hours) of the emissions unit;

vi. the total operating time of the continuous hydrogen sulfide monitoring system while the emissions unit was in operation;

vii. results and dates of quarterly cylinder gas audits;

viii. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

ix. unless previously submitted, the results of any relative accuracy test audit showing the continuous hydrogen sulfide monitor out-of-control and the compliant results following any corrective actions;

x. the date, time, and duration of any/each malfunction** of the continuous hydrogen sulfide monitoring system, emissions unit, and/or control equipment;

xi. the date, time, and duration of any downtime** of the continuous hydrogen sulfide monitoring system and/or control equipment while the emissions unit was in operation; and

xii. the reason (if known) and the corrective actions taken (if any) for each event in b.x. and xi.

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

** each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit

[Authority for term: 40 CFR 60.7]

(7) The deviation reports shall be submitted in accordance with the requirements specified in Section A - Standard Terms and Conditions, term A.2.c).

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

20 percent opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the visible particulate emission observations performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the procedures of 40 CFR 60.11.

b. Emission Limitation:

2.53 pounds of filterable plus condensable PM per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 5 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(9). Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

c. Emission Limitation:

11.10 tons of filterable plus condensable PM emissions per year as a rolling 12-month summation of the monthly emissions.

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable PM limitation (2.53 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton and, therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

d. Emission Limitation:

9.15 pounds of SO_2 per hour.

Applicable Compliance Method:

This emission limitation was based on the NSPS H_2S limitation of 0.01 gr/dscf and converted to 0.027 lb SO_2/mmBtu of heat input times the maximum heat input capacity of the boiler (340 mmBtu/hr). If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 4 and 6 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-18-04. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

e. Emission Limitation:

40.06 tons of SO_2 per year as a rolling 12-month summation of the monthly emissions.

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable SO_2 emission limitation (9.15 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton and, therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

f. Emission Limitation:

13.60 pounds of NOx per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 4 and 7 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

g. Emission Limitation:

59.57 tons of NOx per year as a rolling 12-month summation of the monthly emissions.

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable NOx emission limitation (13.60 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton and, therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

h. Emission Limitation:

1.83 pounds of VOC per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 4 and 25 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-21-10. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

i. Emission Limitation:

8.03 tons of VOC per year as a rolling 12-month summation of the monthly emissions.

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable VOC emission limitation (1.83 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton and, therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

j. Emission Limitation:

2.53 pounds of PM_{10} per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 201 and 202 of 40 CFR Part 51 Appendix M using the methods and procedures specified in OAC rule 3745-17-03(B)(9). Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

k. Emission Limitation:

11.10 tons of PM_{10} per year as a rolling 12-month summation of the monthly emissions.

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable PM_{10} limitation (2.53 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton and, therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

l. Emission Limitation:

28.00 pounds of CO per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 4 and 10 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

m. Emission Limitation:

122.64 tons of CO per year as a rolling 12-month summation of the monthly emissions.

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable CO emission limitation (28.00 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton and, therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

n. Emission Limitation:

SO_2 emissions shall not exceed 0.027 lb/mmBtu of actual heat input.

Applicable Compliance Method:

Compliance with this emissions limitation shall be demonstrated by the monitoring and recordkeeping requirements in d).

o. Emission Limitation:

Refinery fuel gas shall not contain hydrogen sulfide (H_2S) in excess of 230 mg/dscm (0.10 gr/dscf)

Applicable Compliance Method:

Ongoing compliance with the hydrogen sulfide emission limitation(s) contained in this permit, 40 CFR Part 60, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the requirements of 40 CFR Part 60.

[40 CFR 60.13 and 40 CFR Part 60, Appendices B & F]

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

2. B047, H-021-04 CO Boiler

Operations, Property and/or Equipment Description:

B047 - 374 million Btu/hr Babcock and Wilcox [H-021-04] CO boiler fired with refinery fuel gas, a mixture of refinery process gas, landfill gas and natural gas; residual (#6) fuel oil, and CO (from the FCC unit) with ultra low NOx burners, SCR and WGS. If the FCC unit is shutdown, emissions from B046 and/or B047 are not required to pass through the SCR and WGS.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
While operating as a control unit for the FCCU unit, the following emission limitations apply:		
a.	OAC rule 3745-31-05(A)(3) (PTI 04-01447 issued 9/29/06 and modified on 1/23/07, 2/23/09 1/14/10, 5/28/10, 1/27/2011 and 1/6/2012 - P0108943)	The combined filterable particulate matter (PM) emissions from the FCCU (Emissions Unit P011) and the CO Boilers (B046 and B047) shall not exceed 0.45 pound per thousand pounds of coke-burnoff; The combined sulfur dioxide (SO_2) emissions from P011, B046 and B047 shall not exceed 316 pounds per hour; The combined volatile organic compound (VOC) emissions from the FCCU (Emissions Unit P011) and the CO Boilers (Emissions Units B046 and B047) shall not exceed 3.67 pounds per hour; The combined sulfuric acid (H_2SO_4) mist emissions from the FCCU (P011) and CO Boilers (B046 and B047) shall not exceed 60.07 pounds per hour and 263.11 tons

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		per year, based upon a rolling, 365-day summation of the daily emissions; and See b)(2)a. and b)(2)b.
b.	OAC rule 3745-31-05(D) (PTI 04-01447 issued 9/29/06 and modified on 1/23/07, 2/23/09 1/14/10, 5/28/10, 1/27/2011 and 1/6/2012 - P0108943)	The combined nitrogen oxides (NOx) emissions from P011, B046 and B047 shall not exceed 198.51 tons per year, based upon a rolling, 365-day summation of the daily emissions; The combined filterable particulate matter (PM) emissions from P011, B046 and B047 shall not exceed 165.96 tons per year; The combined sulfur dioxide (SO_2) emissions from P011, B046 and B047 shall not exceed 345.71 tons per year, based upon a rolling, 365-day summation of the daily emissions; The combined volatile organic compounds (VOC) emissions from the FCCU (Emissions Unit P011) and the CO Boilers (Emissions Units B046 and B047) shall not exceed 16.07 tons per year, based upon a rolling, 365-day summation of the daily emissions; See b)(2)a., b)(2)b., b)(2)c. and b)(2)e.
c.	OAC rule 3745-31-10 through 20 (PTI 04-01447 issued 9/29/06 and modified on 1/23/07, 2/23/09 1/14/10, 5/28/10, 1/27/2011 and 1/6/2012 - P0108943)	The combined CO emissions from P011, B046 and B047 shall be reduced by a minimum of 99% control efficiency and shall not exceed 500 parts per million by volume dry (ppmvd) at 0% oxygen as a 1-hour average, or 180 ppmvd at 0% oxygen as a rolling, 365-day average, or 1,087.28 tons per year, based upon a rolling, 365-day summation of the daily emissions; and The combined PM_{10} emissions from P011, B046 and B047 shall be controlled by a minimum of 95% and shall not exceed 0.90 pound per thousand pounds of coke-

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		burnoff or 331.92 tons per year, based upon a rolling, 365-day summation of the daily emissions. See b)(2)a.
d.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack serving this unit shall not exceed 20 % opacity, as a 6-minute average, except as provided by the rule.
e.	OAC rule 3745-17-10(C)(1)	0.14 pound of filterable PM emissions per million Btu of actual heat input
f.	OAC rule 3745-18-54(O)(3)	The combined emissions from P011, B046 and B047 shall not exceed 3.00 pounds of SO_2 per thousand pounds of fresh feed.
g.	OAC rule 3745-21-08(E)	See b)(2)d.
h.	40 CFR 60, Subpart J (40 CFR 60.100-109) [Per the Consent Decree (section G.36.) as entered on March 14, 2006, all heaters and boilers shall become affected facilities subject to the requirements of NSPS Subpart J for fuel gas combustion devices by Dec. 31, 2009.]	See b)(2)f. through b)(2)h.
When the FCCU unit is shutdown or the CO boilers operate alone, the following emission limitations apply when emissions are vented to the existing CO boiler stack:		
i.	OAC rule 3745-31-05(A)(3) (PTI 04-01447 issued 9/29/06 and modified on 1/23/07, 2/23/09 1/14/10, 5/28/10, 1/27/2011 and 1/6/2012 - P0108943)	Filterable plus condensable particulate matter emissions (PM) shall not exceed 2.53 pounds per hour and 11.10 tons per year as a rolling 12-month summation of the monthly emissions; Sulfur dioxide (SO_2) emissions shall not exceed 9.15 pounds per hour (based on NSPS limit of 0.027 lb SO_2/mmBtu) and 40.06 tons per year as a rolling 12-month summation of the monthly emissions;

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Nitrogen oxides (NOx) emissions shall not exceed 13.60 pounds per hour and 59.57 tons per year as a rolling 12-month summation of the monthly emissions; Volatile organic compounds (VOC) shall not exceed 1.83 pounds per hour and 8.03 tons per year as a rolling 12-month summation of the monthly emissions; and See b)(2)b.
j.	OAC rule 3745-31-05(D) (PTI 04-01447 issued 9/29/06 and modified on 1/23/07, 2/23/09 1/14/10, 5/28/10, 1/27/2011 and 1/6/2012 - P0108943)	Particulate matter emissions less than 10 microns in diameter (PM_{10}) shall not exceed 2.53 pounds per hour and 11.10 tons per year as a rolling 12-month summation of the monthly emissions; Carbon monoxide (CO) emissions shall not exceed 28.00 pounds per hour and 122.64 tons per year as a rolling 12-month summation of the monthly emissions; See b)(2)b. and b)(2)e.
k.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack serving this unit shall not exceed 20 % opacity, as a 6-minute average, except as provided by the rule.
l.	OAC rule 3745-17-10(C)(1)	See b)(2)d.
m.	OAC rule 3745-18-06(D)	See b)(2)d.
n.	OAC rule 3745-21-08(E)	See b)(2)d.
o.	40 CFR 60, Subpart J (40 CFR 60.100-109) [Per the Consent Decree (section G.36.) as entered on March 14, 2006, all heaters and boilers shall become affected facilities subject to the requirements of NSPS Subpart J for fuel gas combustion devices by Dec. 31, 2009.]	See b)(2)f. through b)(2)h.

(2) Additional Terms and Conditions

a. The CO Boilers (Emission Units B046 and B047) operate as control for the FCCU unit (Emissions Unit P011) and have combined emission limitations when the FCCU is operating. The monitoring, recordkeeping, reporting and testing requirements for the combined emission limits for P011, B046 and B047 are included in the terms and conditions for emissions unit (P011). The combined stack emissions are from the new wet gas scrubber stack.

b. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1), 3745-17-10(C)(1), 3745-18-54(O)(3), 3745-21-08(E), OAC rule 3745-31-05(A), OAC rule 3745-31-05(C), and OAC rules 3745-31-10 through 20.

c. Beginning at startup after the FCCU expansion and by no later than December 31, 2009, the combined SO_2 emissions from the P011, B046 and B047 shall not exceed 25 ppmvd based on a 365-day rolling average or 50 ppmvd based on a 7-day rolling average, each at 0% oxygen.

d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

e. [Consent Decree (CD), section G.36. & 38. - SO_2 EMISSION REDUCTIONS FROM AND NSPS APPLICABILITY FOR HEATERS AND BOILERS]

As required by the consent decree as entered on March 14, 2006, no later than December 31, 2009, this emissions unit shall become an affected facility subject to the requirements of NSPS Subpart J for fuel gas combustion devices.

For those heaters and boilers that are or become an affected facility under NSPS Subpart J pursuant to the Consent Decree, entry of the Consent Decree and compliance with the relevant monitoring requirements of the Consent Decree shall satisfy the notice requirements of 40 CFR 60.7(a) and the initial performance test requirement of 40 CFR 60.8.

f. [60.104(a)(1)]
The permitee shall not burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H_2S) in excess of 230 mg/dscm (0.10 gr/dscf). The combustion in a flare of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from this paragraph

g. The permittee shall maintain a written quality assurance/quality control plan for the continuous hydrogen sulfide monitoring system, designed to ensure continuous valid and representative readings of hydrogen sulfide emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

[40 CFR 60.13] and [40 CFR Part 60, Appendix F]

h. The continuous emission monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

[40 CFR 60.2] and/or [40 CFR 63.2] and [Appendix F to 40 CFR Part 60]

c) Operational Restrictions

(1) The permittee shall burn only the off-gases from the regeneration of the catalyst in emissions unit P011, natural gas, refinery fuel gas and/or residual fuel oil in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1)]

(2) The permittee shall not burn oil in this emissions unit during periods when emissions are vented to the existing CO Boiler stack.

[Authority for term: OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than the off gases from the regeneration of the catalyst in P011, natural gas, refinery fuel gas, and/or residual fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall perform daily checks, when the emissions unit is in operation and emissions are vented to the existing CO Boiler stack and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) REFINERY FUEL GAS SAMPLING
The permittee shall collect samples of the refinery fuel gas system Monday through Friday (except holidays) for gas chromatographic analysis or other approved analytical method. Each normal sample point shall be collected at least two times per week in accordance with the schedule developed by the permittee. Each sample shall be collected in a sample bag, bomb, cylinder or similar device suitable for the designated analytical method.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain records on the laboratory method used to conduct compositional analysis of the refinery fuel gas. The method shall be reported to Toledo Environmental Services in the periodic report. Any standard ASTM method may be used.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall maintain daily records of the actual heating value of the refinery fuel gas. The actual heating value (H) of the refinery fuel gas shall be calculated from the results of a fuel gas compositional analysis using gas chromatography and the results maintained in units of Btu/scf.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall maintain records of the average H_2S content (in ppmv) for the refinery fuel gas for each day, and which hydrogen sulfide continuous emissions monitoring system (H_2S CEMS) was used to obtain the data (i.e., from which of the following emissions units: B048, B050, B051, B053, or B054).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) The permittee shall maintain daily records (Monday through Friday) of the average SO_2 emission rate for the refinery fuel gas. The SO_2 emission rate shall be calculated as follows:

ERG = ((14.696)*S*(32)*(1.998))/(H*(10.73)*(520))

Where:

ERG = average SO_2 emission rate, in pounds SO_2 per mmBtu for each day;

14.696 = standard pressure, psia;

S = daily average H_2S content of refinery fuel gas, ppmv;

32 = molecular weight of sulfur, lb per lb-mole;

1.998 = lb of SO_2 per lb sulfur;

H = daily average heat content, Btu/scf (STP at 14.696 psia and 520 ºR);

10.73 = ideal gas constant, psia-cubic feet/lb-mole ºR);

520 = standard temperature, ºR

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-18-04(F)(3)]

(8) For each day during which the permittee burns a fuel other than off gases from the regeneration of the catalyst in P011, natural gas, refinery fuel gas, and residual fuel oil, the permittee shall maintain a record of the type, quantity, sulfur content in pound(s) of sulfur per mmdscf, and heating value in Btu/dscf of the fuel burned.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(9) The permittee shall maintain a record of the dates and times emissions from this emissions unit were vented to the existing CO Boiler stack.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(10) HYDROGEN SULFIDE CEM
The permittee shall maintain on site, the document of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous hydrogen sulfide monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 7. The letter/document of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendix B]

(11) The permittee shall operate and maintain equipment to continuously monitor and record hydrogen sulfide emissions from this emissions unit in units of the applicable

standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

The permittee shall maintain records of data obtained by the continuous hydrogen sulfide monitoring system including, but not limited to:

a. emissions of hydrogen sulfide in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;

b. emissions of hydrogen sulfide, in all units of the applicable standard(s) and in the appropriate averaging period;

c. results of quarterly cylinder gas audits;

d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

f. hours of operation of the emissions unit, continuous hydrogen sulfide monitoring system, and control equipment;

g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous hydrogen sulfide monitoring system;

h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous hydrogen sulfide monitoring system; as well as,

i. the reason (if known) and the corrective actions taken (if any) for each such event in (g) and (h).

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendices B & F]

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than off gases from the regeneration of the catalyst in P011, refinery fuel gas and residual fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit semiannual written reports for the CO Boiler bypass stack that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month periods.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit quarterly deviation (excursion) reports that identify each average SO_2 emission rate, as calculated in d) under REFINERY FUEL GAS, that exceeded the SO_2 daily average emission limitation of 0.027 pound of SO_2 per mmBtu of actual heat input for the burning of refinery fuel gas.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall submit deviation (excursion) reports that identify each day when fuel oil was burned in this emissions unit during periods when emissions were vented to the existing CO Boiler stack. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous hydrogen sulfide monitoring system:

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of hydrogen sulfide emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as, the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).

b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

i. the facility name and address;

ii. the manufacturer and model number of the continuous hydrogen sulfide and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;

v. the total operating time (hours) of the emissions unit;

vi. the total operating time of the continuous hydrogen sulfide monitoring system while the emissions unit was in operation;

vii. results and dates of quarterly cylinder gas audits;

viii. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

ix. unless previously submitted, the results of any relative accuracy test audit showing the continuous hydrogen sulfide monitor out-of-control and the compliant results following any corrective actions;

x. the date, time, and duration of any/each malfunction** of the continuous hydrogen sulfide monitoring system, emissions unit, and/or control equipment;

xi. the date, time, and duration of any downtime** of the continuous hydrogen sulfide monitoring system and/or control equipment while the emissions unit was in operation; and

xii. the reason (if known) and the corrective actions taken (if any) for each event in b.x. and xi.

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

** each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit

[Authority for term: 40 CFR 60.7]

(7) The deviation reports shall be submitted in accordance with the requirements specified in Section A - Standard Terms and Conditions, term A.2.c).

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

20 percent opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the visible particulate emission observations performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the procedures of 40 CFR 60.11.

b. Emission Limitation:

2.53 pounds of filterable plus condensable PM per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 5 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(9). Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

c. Emission Limitation:

11.10 tons of filterable plus condensable PM emissions per year as a rolling 12-month summation of the monthly emissions.

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable PM limitation (2.53 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton and, therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

d. Emission Limitation:

9.15 pounds of SO_2 per hour.

Applicable Compliance Method:

This emission limitation was based on the NSPS H_2S limitation of 0.01 gr/dscf and converted to 0.027 lb SO_2/mmBtu of heat input times the maximum heat input capacity of the boiler (340 mmBtu/hr). If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 4 and 6 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-18-04. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

e. Emission Limitation:

40.06 tons of SO_2 per year as a rolling 12-month summation of the monthly emissions.

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable SO_2 emission limitation (9.15 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton and, therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

f. Emission Limitation:

13.60 pounds of NOx per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 4 and 7 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

g. Emission Limitation:

59.57 tons of NOx per year as a rolling 12-month summation of the monthly emissions.

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable NOx emission limitation (13.60 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton and, therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

h. Emission Limitation:

1.83 pounds of VOC per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 4 and 25 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-21-10. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

i. Emission Limitation:

8.03 tons of VOC per year as a rolling 12-month summation of the monthly emissions.

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable VOC emission limitation (1.83 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton and, therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

j. Emission Limitation:

2.53 pounds of PM_{10} per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 201 and 202 of 40 CFR Part 51 Appendix M using the methods and procedures specified in OAC rule 3745-17-03(B)(9). Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

k. Emission Limitation:

11.10 tons of PM_{10} per year as a rolling 12-month summation of the monthly emissions.

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable PM limitation (2.53 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton and, therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

l. Emission Limitation:

28.00 pounds of CO per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 4 and 10 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

m. Emission Limitation:

122.64 tons of CO per year as a rolling 12-month summation of the monthly emissions.

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable CO emission limitation (28.00 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton and, therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

n. Emission Limitation:

SO_2 emissions shall not exceed 0.027 lb/mmBtu of actual heat input.

Applicable Compliance Method:

Compliance with this emissions limitation shall be demonstrated by the monitoring and recordkeeping requirements in d).

o. Emission Limitation:

Refinery fuel gas shall not contain hydrogen sulfide (H_2S) in excess of 230 mg/dscm (0.10 gr/dscf)

Applicable Compliance Method:

Ongoing compliance with the hydrogen sulfide emission limitation(s) contained in this permit, 40 CFR Part 60, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the requirements of 40 CFR Part 60.

[40 CFR 60.13 and 40 CFR Part 60, Appendices B & F]

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

3. B048, H-9401

Operations, Property and/or Equipment Description:

B048 - 43 mmBtu per hour Born heater [H9401] fired with only natural gas or refinery fuel gas, a mixture of refinery process gas, landfill gas and natural gas, which may be fired individually or in combination; with a hydrogen sulfide continuous emission monitoring system (H_2S CEMS) and no control.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-095 issued 5/17/1977)	The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-17-07(A), and 3745-17-10(B).
b.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
c.	OAC rule 3745-17-10(B)(1)	0.02 pound of particulate emissions per mmBtu of actual heat input
d.	OAC rule 3745-18-54(O)(7)	See b)(2)b.
e.	40 CFR Part 60 Subpart J (40 CFR 60.100-109) [In accordance with 40 CFR 60.100(a) and as defined in 60.101(g), this emission unit is a fuel gas combustion device in a petroleum facility.]	See b)(2)c., b)(2)e. and b)(2)f.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
f.	40 CFR Part 63, Subpart DDDDD	Applicable Emission Limits in Tables 1 and 2; Work Practice Standards in Table 3 and Operating Limits in Table 4 to Subpart DDDDD of 40 CFR Part 63 (subject to change based on the issuance of the Final Action on Reconsideration of 40 CFR Part 63, Subpart DDDDD by U.S. EPA). See b)(2)d.

(2) Additional Terms and Conditions

a. The burning of fuel oil in this emissions unit is prohibited.

b. The emission limitation specified by this rule is less stringent than the requirements of 40 CFR Part 60, Subpart J, therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation.

c. [60.104(a)(1)]
No permittee subject to 40 CFR Part 60, Subpart J shall burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H_2S) in excess of 230 mg/dscm (0.10 gr/dscf or 159 ppmv at 14.7 psia and 520 degrees Rankin). The combustion in a flare of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from this paragraph.

d. The requirements of 40 CFR Part 63, Subpart DDDDD are currently effective due to the January 9, 2012 decision by the United States District Court for the District of Columbia to vacate the administrative stay that U.S. EPA put in place during the reconsideration of the March, 2011 final rules. On February 7, 2012, U.S. EPA issued a “No Action Assurance“ letter to facilities and indicated that U.S. EPA will exercise its enforcement discretion to not pursue enforcement action of violations of the Initial Notification deadlines established in the rule. This letter further notes that U.S. EPA has proposed revisions to the compliance dates for all units (the date by which a unit must be in compliance with the substantive requirements in the Boiler MACT rule) and to the subcategories for some units. U.S. EPA plans to issue a Final Action on Reconsideration of 40 CFR Part 63, Subpart DDDDD in the spring of 2012.

e. The permittee shall maintain a written quality assurance/quality control plan for the continuous hydrogen sulfide monitoring system, designed to ensure continuous valid and representative readings of hydrogen sulfide emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a

logbook dedicated to the monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

[40 CFR 60.13] and [40 CFR Part 60, Appendix F]

f. The continuous emission monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

[40 CFR 60.2] and/or [40 CFR 63.2] and [Appendix F to 40 CFR Part 60]

c) Operational Restrictions

(1) The permittee shall burn only refinery fuel gas and natural gas in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than refinery fuel gas or natural gas, the permittee shall maintain a record of the type, quantity, sulfur content in pound(s) of sulfur per mmdscf, and heating value in Btu/dscf of the fuel burned.

[Authority for term: OAC rule 3745-77-07(C)(1)]

H_2S MONITORING AND RECORD KEEPING

(2) [60.105(a)(4) & (a)(4)(i)-(iii)]
A continuous monitoring system shall be installed, calibrated, maintained, and operated by the permittee subject to the provisions of 40 CFR Part 60, Subpart J as follows: an instrument for continuously monitoring and recording the concentration (dry basis) of H_2S in fuel gases before being burned in any fuel gas combustion device.

a. The span value for this instrument is 425 mg/dscm (300 ppmv) H_2S.

b. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H_2S in the fuel gas being burned.

c. The performance evaluations for this H_2S monitor under 40 CFR 60.13(c) shall use Performance Specification 7 from 40 CFR Part 60, Appendix B. Method 11, 15, 15A, or 16 shall be used for conducting the relative accuracy evaluations.

(3) [40 CFR 60.105(e)(3)(ii)]
For the purpose of reports under 40 CFR Part 60.7(c), periods of excess emissions that shall be determined and reported are defined as follows:

all rolling 3-hour periods during which the average concentration of H_2S as measured by the H_2S CEMS under 40 CFR Part 60.105(a)(4) exceeds 230 mg/dscm (0.10 gr/dscf).

NOTE: All averages, except for opacity, shall be determined as the arithmetic average of the applicable 1-hour averages, e.g., the rolling 3-hour average shall be determined as the arithmetic average of three contiguous 1-hour averages.

(4) The permittee shall maintain on site, the document of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous hydrogen sulfide monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 7. The letter/document of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendix B]

(5) The permittee shall operate and maintain equipment to continuously monitor and record hydrogen sulfide emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

The permittee shall maintain records of all data obtained by the continuous hydrogen sulfide monitoring system including, but not limited to:

a. emissions of hydrogen sulfide in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;

b. emissions of hydrogen sulfide, in units of the applicable standard(s) and in the appropriate averaging period;

c. results of quarterly cylinder gas audits;

d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

f. hours of operation of the emissions unit, continuous hydrogen sulfide monitoring system, and control equipment;

g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous hydrogen sulfide monitoring system;

h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous hydrogen sulfide monitoring system; as well as,

i. the reason (if known) and the corrective actions taken (if any) for each such event in (g) and (h).

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendices B & F]

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous hydrogen sulfide monitoring system:

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of hydrogen sulfide emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as, the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).

b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

i. the facility name and address;

ii. the manufacturer and model number of the continuous hydrogen sulfide and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;

v. the total operating time (hours) of the emissions unit;

vi. the total operating time of the continuous hydrogen sulfide monitoring system while the emissions unit was in operation;

vii. results and dates of quarterly cylinder gas audits;

viii. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

ix. unless previously submitted, the results of any relative accuracy test audit showing the continuous hydrogen sulfide monitor out-of-control and the compliant results following any corrective actions;

x. the date, time, and duration of any/each malfunction** of the continuous hydrogen sulfide monitoring system, emissions unit, and/or control equipment;

xi. the date, time, and duration of any downtime** of the continuous hydrogen sulfide monitoring system and/or control equipment while the emissions unit was in operation; and

xii. the reason (if known) and the corrective actions taken (if any) for each event in b.x. and xi.

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

** each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit

[Authority for term: 40 CFR Part 60.7]

(4) The deviation reports shall be submitted in accordance with the requirements specified in Section A – Standard Terms and Conditions, A.2.c) of this permit.

f) Testing Requirements

(1) Compliance with the emissions limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring and record keeping requirements of d). If required, the permittee shall demonstrate compliance using the methods and procedures of OAC rule 3745-17-03(B)(1).

b. Emission Limitation:

0.02 pound of particulate emissions per mmBtu of actual heat input

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum hourly combustion rate, in million standard cubic feet per hour, by the appropriate particulate emission factor for refinery fuel gas/natural gas (from AP-42 Chapter 1.4 (7/98)) in pound(s) per million standard cubic feet and dividing by the maximum hourly heat input to the process heater, in mmBtu per hour. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the requirements specified in OAC rule 3745-17-03(B)(9).

c. Emission Limitation:

Refinery fuel gas shall not contain hydrogen sulfide (H_2S) in excess of 230 mg/dscm (0.10 gr/dscf)

Applicable Compliance Method:

Ongoing compliance with the hydrogen sulfide emission limitation(s) contained in this permit, 40 CFR Part 60, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the requirements of 40 CFR Part 60.

In accordance with 40 CFR 60.160(e), if required, the permittee shall determine compliance with the H_2S standard as follows: Method 11, 15, 15A or 16 shall be used to determine the H_2S concentration. The gases entering the sampling train should be at about atmospheric pressure. If the pressure in the refinery fuel gas lines is relatively high, a flow control valve may be used to reduce the pressure. If the line pressure is high enough to operate the sampling train without a vacuum pump, the pump may be eliminated from the sampling train. The sample shall be drawn from a point near the centroid of the fuel gas line.

For Method 11, the sampling time and sample volume shall be at least 10 minutes and 0.010 dscm (0.35 dscf). Two samples of equal sampling times shall be taken at about 1-hour intervals. The arithmetic average of these two samples

shall constitute a run. For most fuel gases, sampling times exceeding 20 minutes may result in depletion of the collection solution, although fuel gases containing low concentrations of H_2S may necessitate sampling for longer periods of time.

For Method 15 or 16, at least three injects over a 1-hour period shall constitute a run.

For Method 15A, a 1-hour sample shall constitute a run.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR 60.106(e), 40 CFR 60.13 and 40 CFR Part 60, Appendices B & F]

g) Miscellaneous Requirements

(1) None.

4. B050, H-604

Operations, Property and/or Equipment Description:

B050 - 68 mmBtu per hour Selas Corp. heater [H604] fired only with natural gas or with refinery fuel gas, a mixture of refinery process gas, landfill gas and natural gas, which may be fired individually or in combination; with low-NOx burners and a hydrogen sulfide continuous emission monitoring system (H_2S CEMS).

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule
b.	OAC rule 3745-31-05(A)(3) (PTI 04-420 issued 11/25/1987)	5.0 pounds of particulate emissions per mmcf (0.005 lb/mmBtu) of actual heat input 1.6 tons per year of particulate emissions 0.12 pound of nitrogen oxides (NOx) per mmBtu of actual heat input 35.8 tons per year of NOx emissions 8.4 tons per year of sulfur dioxide (SO_2) emissions See b)(2)a. .
c.	40 CFR Part 60, Subpart J (40 CFR 60.100-109) [In accordance with 40 CFR 60.100(a) and defined in 60.101(g),	See b)(2)b., b)(2)e. and b)(2)f.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	this emission unit is a fuel gas combustion device in a petroleum facility.]	
d.	OAC rule 3745-18-54(O)(1)	See b)(2)c.
e.	OAC rule 3745-17-10(B)(1)	See b)(2)c.
f.	40 CFR Part 63, Subpart DDDDD	Applicable Emission Limits in Tables 1 and 2; Work Practice Standards in Table 3 and Operating Limits in Table 4 to Subpart DDDDD of 40 CFR Part 63 (subject to change based on the issuance of the Final Action on Reconsideration of 40 CFR Part 63, Subpart DDDDD by U.S. EPA). See b)(2)d.

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) and 40 CFR Part 60, Subpart J.

b. [60.104(a)(1)]
No permittee subject to 40 CFR Part 60, Subpart J, shall burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H_2S) in excess of 230 mg/dscm (0.10 gr/dscf). The combustion in a flare of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from this paragraph.

c. The emission limitation specified in this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

d. The requirements of 40 CFR Part 63, Subpart DDDDD are currently effective due to the January 9, 2012 decision by the United States District Court for the District of Columbia to vacate the administrative stay that U.S. EPA put in place during the reconsideration of the March, 2011 final rules. On February 7, 2012, U.S. EPA issued a “No Action Assurance“ letter to facilities and indicated that U.S. EPA will exercise its enforcement discretion to not pursue enforcement action of violations of the Initial Notification deadlines established in the rule. This letter further notes that U.S. EPA has proposed revisions to the compliance dates for all units (the date by which a unit must be in compliance with the substantive requirements in the Boiler MACT rule) and to the subcategories for some units. U.S. EPA plans to issue a Final Action on Reconsideration of 40 CFR Part 63, Subpart DDDDD in the spring of 2012.

e. The permittee shall maintain a written quality assurance/quality control plan for the continuous hydrogen sulfide monitoring system, designed to ensure continuous valid and representative readings of hydrogen sulfide emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

[40 CFR 60.13] and [40 CFR Part 60, Appendix F]

f. The continuous emission monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

[40 CFR 60.2] and/or [40 CFR 63.2] and [Appendix F to 40 CFR Part 60]

c) Operational Restrictions

(1) The permittee shall burn only natural gas or refinery fuel gas in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than natural gas or refinery fuel gas, the permittee shall maintain a record of the type, quantity, sulfur content in pound(s) of sulfur per mmdscf, and heating value in Btu/dscf of the fuel burned.

[Authority for term: OAC rule 3745-77-07(A)(1)]

H_2S MONITORING AND RECORD KEEPING

(2) [60.105(a)(4) & (a)(4)(i)-(iii)]
A continuous monitoring system shall be installed, calibrated, maintained, and operated by the permittee subject to the provisions of 40 CFR Part 60, Subpart J as follows: an instrument for continuously monitoring and recording the concentration (dry basis) of H_2S in fuel gases before being burned in any fuel gas combustion device.

a. The span value for this instrument is 425 mg/dscm (300 ppmv) H_2S.

b. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H_2S in the fuel gas being burned.

c. The performance evaluations for this H_2S monitor under 40 CFR 60.13(c) shall use Performance Specification 7 from 40 CFR Part 60, Appendix B. Method 11, 15, 15A, or 16 shall be used for conducting the relative accuracy evaluations.

(3) [40 CFR 60.105(e)(3)(ii)]
For the purpose of reports under 40 CFR Part 60.7(c), periods of excess emissions that shall be determined and reported are defined as follows:

all rolling 3-hour periods during which the average concentration of H_2S as measured by the H_2S CEMS under 40 CFR Part 60.105(a)(4) exceeds 230 mg/dscm (0.10 gr/dscf).

NOTE: All averages, except for opacity, shall be determined as the arithmetic average of the applicable 1-hour averages, e.g., the rolling 3-hour average shall be determined as the arithmetic average of three contiguous 1-hour averages.

(4) The permittee shall maintain on site, the document of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous hydrogen sulfide monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 7. The letter/document of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendix B]

(5) The permittee shall operate and maintain equipment to continuously monitor and record hydrogen sulfide emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

The permittee shall maintain records of all data obtained by the continuous hydrogen sulfide monitoring system including, but not limited to:

a. emissions of hydrogen sulfide in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;

b. emissions of hydrogen sulfide, in units of the applicable standard(s) and in the appropriate averaging period;

c. results of quarterly cylinder gas audits;

d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

f. hours of operation of the emissions unit, continuous hydrogen sulfide monitoring system, and control equipment;

g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous hydrogen sulfide monitoring system;

h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous hydrogen sulfide monitoring system; as well as,

i. the reason (if known) and the corrective actions taken (if any) for each such event in (g) and (h).

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendices B & F]

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas or refinery fuel gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous hydrogen sulfide monitoring system:

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of hydrogen sulfide emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as, the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).

b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

i. the facility name and address;

ii. the manufacturer and model number of the continuous hydrogen sulfide and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;

v. the total operating time (hours) of the emissions unit;

vi. the total operating time of the continuous hydrogen sulfide monitoring system while the emissions unit was in operation;

vii. results and dates of quarterly cylinder gas audits;

viii. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

ix. unless previously submitted, the results of any relative accuracy test audit showing the continuous hydrogen sulfide monitor out-of-control and the compliant results following any corrective actions;

x. the date, time, and duration of any/each malfunction** of the continuous hydrogen sulfide monitoring system, emissions unit, and/or control equipment;

xi. the date, time, and duration of any downtime** of the continuous hydrogen sulfide monitoring system and/or control equipment while the emissions unit was in operation; and

xii. the reason (if known) and the corrective actions taken (if any) for each event in b.x. and xi.

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

** each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit

[Authority for term: 40 CFR Part 60.7]

(4) The deviation reports shall be submitted in accordance with the requirements specified in Section A - General Terms and Conditions A.2.c) of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(1).

b. Emission Limitation:

5.0 pounds of particulate emissions per mmcf (0.005 lb/mmBtu) of actual heat input

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the maximum hourly refinery fuel gas combustion rate, in million standard cubic feet per hour, by the appropriate particulate emission factor, in pound(s) of particulates per million standard cubic feet, from AP-42 Chapter 1.4 (7/98), and then dividing by the maximum hourly heat input to the process heater, in mmBtu per hour. If required, the permittee shall demonstrate compliance with this emission limitation by conducting emission testing in accordance with the requirements specified in OAC rule 3745-17-03(B)(9).

c. Emission Limitation:

0.12 pound of nitrogen oxides (NOx) per mmBtu of actual heat input

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 7.

d. Emission Limitation:

Refinery fuel gas shall not contain hydrogen sulfide (H_2S) in excess of 230 mg/dscm (0.10 gr/dscf)

Applicable Compliance Method:

Ongoing compliance with the hydrogen sulfide emission limitation(s) contained in this permit, 40 CFR Part 60, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and

Record keeping section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the requirements of 40 CFR Part 60.

In accordance with 40 CFR 60.160(e), if required, the permittee shall determine compliance with the H2S standard as follows: Method 11, 15, 15A or 16 shall be used to determine the H2S concentration. The gases entering the sampling train should be at about atmospheric pressure. If the pressure in the refinery fuel gas lines is relatively high, a flow control valve may be used to reduce the pressure. If the line pressure is high enough to operate the sampling train without a vacuum pump, the pump may be eliminated from the sampling train. The sample shall be drawn from a point near the centroid of the fuel gas line.

For Method 11, the sampling time and sample volume shall be at least 10 minutes and 0.010 dscm (0.35 dscf). Two samples of equal sampling times shall be taken at about 1-hour intervals. The arithmetic average of these two samples shall constitute a run. For most fuel gases, sampling times exceeding 20 minutes may result in depletion of the collection solution, although fuel gases containing low concentrations of H2S may necessitate sampling for longer periods of time.

For Method 15 or 16, at least three injects over a 1-hour period shall constitute a run.

For Method 15A, a 1-hour sample shall constitute a run.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR 60.106(e), 40 CFR 60.13 and 40 CFR Part 60, Appendices B & F]

e. Emission Limitation:

1.6 tons per year of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the particulate emission limitation of 0.005 lb/mmBtu by the maximum operating rate of 68 mmBtu/hr, times the maximum hours of operation per year (8760 hrs/yr), and then dividing by 2000 lbs/ton.

f. Emission Limitation:

35.8 tons per year of NOx emissions

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the NOx emission limitation of 0.12 lb/mmBtu by the maximum operating rate of 68 mmBtu/hr, times the maximum hours of operation per year (8760 hrs/yr), and then dividing by 2000 lbs/ton.

g. Emission Limitation:

8.4 tons per year of SO_2 emissions

Applicable Compliance Method:

Compliance shall be demonstrated by dividing the SO_2 emission factor of 26.92 lbs/mmscf by 950 Btu/scf (ave. heat content of RFG), and then multiplying by the maximum capacity of the burner (68 mmBtu/hr), times 8760 hours of operation per year, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual limitation.

The SO_2 emission factor was calculated by first converting the 40 CFR Part 60, Subpart J H_2S emission limitation of 0.10 gr/dscf to 14.3 lbs/mmscf by dividing by 7000 gr/lb and then multiplying by 1 million scf/mmscf. Then 14.3 lb of H_2S per mmscf was multiplied by 64 lbs of SO_2 per mole, and then divided by 34 lbs of H_2S per mole.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

5. B051, H-311

Operations, Property and/or Equipment Description:

B051 - 250 mmBtu per hour Foster Wheeler heater [H311] fired with only natural gas or with refinery fuel gas, a mixture of refinery process gas, landfill gas and natural gas, which may be fired individually or in combination with low-NOx burners and a hydrogen sulfide continuous emission monitoring system (H_2S CEMS).

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
b.	OAC rule 3745-31-05(A)(3) (PTI 04-500 modified on 2/19/2002)	1.86 lbs/hr of particulate emissions 8.16 tons per year of particulate emissions 6.60 lbs/hr of sulfur dioxide (SO_2) 28.90 tons per year of SO_2 30.00 lbs/hr of nitrogen oxides (NOx) 131.4 tons per year of NOx 20.59 lbs/hr of carbon monoxide (CO) 90.18 tons per year of CO 1.35 lbs/hr of volatile organic compounds (VOC) 5.90 tons per year of VOC See b)(2)a. and b)(2)b.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	40 CFR Part 60,Subpart J (40 CFR 60.100-109) [In accordance with 40 CFR 60.100(a) and defined in 60.101(g), this emission unit is a fuel gas combustion device in a petroleum facility.]	See b)(2)b., b)(2)e. and b)(2)f.
d.	OAC rule 3745-18-54(O)(1)	See b)(2)c.
e.	OAC rule 3745-17-10(B)(1)	See b)(2)c.
f.	40 CFR Part 63, Subpart DDDDD	Applicable Emission Limits in Tables 1 and 2; Work Practice Standards in Table 3 and Operating Limits in Table 4 to Subpart DDDDD of 40 CFR Part 63 (subject to change based on the issuance of the Final Action on Reconsideration of 40 CFR Part 63, Subpart DDDDD by U.S. EPA). See b)(2)d.

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart J.

b. [60.104(a)(1)]
No permittee subject to 40 CFR Part 60, Subpart J shall burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H_2S) in excess of 230 mg/dscm (0.10 gr/dscf). The combustion in a flare of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from this paragraph.

c. The emission limitation specified in this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

d. The requirements of 40 CFR Part 63, Subpart DDDDD are currently effective due to the January 9, 2012 decision by the United States District Court for the District of Columbia to vacate the administrative stay that U.S. EPA put in place during the reconsideration of the March, 2011 final rules. On February 7, 2012, U.S. EPA issued a “No Action Assurance“ letter to facilities and indicated that U.S. EPA will exercise its enforcement discretion to not pursue enforcement action of violations of the Initial Notification deadlines established in the rule. This letter

further notes that U.S. EPA has proposed revisions to the compliance dates for all units (the date by which a unit must be in compliance with the substantive requirements in the Boiler MACT rule) and to the subcategories for some units. U.S. EPA plans to issue a Final Action on Reconsideration of 40 CFR Part 63, Subpart DDDDD in the spring of 2012.

e. The permittee shall maintain a written quality assurance/quality control plan for the continuous hydrogen sulfide monitoring system, designed to ensure continuous valid and representative readings of hydrogen sulfide emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

[40 CFR 60.13] and [40 CFR Part 60, Appendix F]

f. The continuous emission monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

[40 CFR 60.2] and/or [40 CFR 63.2] and [Appendix F to 40 CFR Part 60]

c) Operational Restrictions

(1) The permittee shall burn only natural gas or refinery fuel gas in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than natural gas or refinery fuel gas, the permittee shall maintain a record of the type, quantity, sulfur content in pound(s) of sulfur per mmdscf, and heating value in Btu/dscf of the fuel burned.

[Authority for term: OAC rule 3745-77-07(C)(1)]

H_2S CEM MONITORING AND RECORD KEEPING

(2) [40 CFR Part 60.105(a)(4) & (a)(4)(i)-(iii)]
A continuous monitoring system shall be installed, calibrated, maintained, and operated by the permittee subject to the provisions of 40 CFR Part 60, Subpart J as follows: an instrument for continuously monitoring and recording the concentration (dry basis) of H_2S in fuel gases before being burned in any fuel gas combustion device.

a. The span value for this instrument is 425 mg/dscm (300 ppmv) H_2S.

b. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H_2S in the fuel gas being burned.

c. The performance evaluations for this H_2S monitor under 40 CFR Part 60.13(c) shall use Performance Specification 7 from 40 CFR Part 60, Appendix B. Method 11, 15, 15A, or 16 shall be used for conducting the relative accuracy evaluations.

(3) [40 CFR 60.105(e)(3)(ii)]
For the purpose of reports under 40 CFR Part 60.7(c), periods of excess emissions that shall be determined and reported are defined as follows:

all rolling, 3-hour periods during which the average concentration of H_2S as measured by the H_2S CEMS under 40 CFR Part 60.105(a)(4) exceeds 230 mg/dscm (0.10 gr/dscf).

NOTE: All averages, except for opacity, shall be determined as the arithmetic average of the applicable 1-hour averages, e.g., the rolling, 3-hour average shall be determined as the arithmetic average of three contiguous 1-hour averages.

(4) The permittee shall maintain on site, the document of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous hydrogen sulfide monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 7. The letter/document of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendix B]

(5) The permittee shall operate and maintain equipment to continuously monitor and record hydrogen sulfide emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

The permittee shall maintain records of all data obtained by the continuous hydrogen sulfide monitoring system including, but not limited to:

a. emissions of hydrogen sulfide in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;

b. emissions of hydrogen sulfide, in units of the applicable standard(s) and in the appropriate averaging period;

c. results of quarterly cylinder gas audits;

d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

f. hours of operation of the emissions unit, continuous hydrogen sulfide monitoring system, and control equipment;

g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous hydrogen sulfide monitoring system;

h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous hydrogen sulfide monitoring system; as well as,

i. the reason (if known) and the corrective actions taken (if any) for each such event in (g) and (h).

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendices B & F]

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas or refinery fuel gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous hydrogen sulfide monitoring system:

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of hydrogen sulfide emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as, the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).

b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

i. the facility name and address;

ii. the manufacturer and model number of the continuous hydrogen sulfide and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;

v.

vi. the total operating time (hours) of the emissions unit;

vii. the total operating time of the continuous hydrogen sulfide monitoring system while the emissions unit was in operation;

viii. results and dates of quarterly cylinder gas audits;

ix. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

x. unless previously submitted, the results of any relative accuracy test audit showing the continuous hydrogen sulfide monitor out-of-control and the compliant results following any corrective actions;

xi. the date, time, and duration of any/each malfunction** of the continuous hydrogen sulfide monitoring system, emissions unit, and/or control equipment;

xii. the date, time, and duration of any downtime** of the continuous hydrogen sulfide monitoring system and/or control equipment while the emissions unit was in operation; and

xiii. the reason (if known) and the corrective actions taken (if any) for each event in b.x. and xi.

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

** each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit

[Authority for term: 40 CFR Part 60.7]

(4) The deviation reports shall be submitted in accordance with the requirements specified in Section A - General Terms and Conditions A.2.c) of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(1).

b. Emission Limitation:

1.86 pounds of particulate emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated by conducting emission testing in accordance with the methods and procedures specified in 40 CFR Part 60, Subpart A, Methods 1 through 5. Alternative U.S. EPA test methods may be used with prior approval from Ohio EPA.

c. Emission Limitation:

6.60 lbs/hr of SO_2

Applicable Compliance Method:

If required, compliance shall be demonstrated by conducting emission testing in accordance with the methods and procedures specified in 40 CFR Part 60, Subpart A, Methods 1 through 4 and Method 6. Alternative U.S. EPA test methods may be used with prior approval from Ohio EPA.

d. Emission Limitation:

30.00 lbs/hr of NOx

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission test methods and procedures specified in f)(3).

e. Emission Limitation:

20.59 lbs/hr of CO

Applicable Compliance Method:

If required, compliance shall be demonstrated by conducting emission testing in accordance with the methods and procedures specified in 40 CFR Part 60, Subpart A, Methods 1 through 4 and Method 10. Alternative U.S. EPA test methods may be used with prior approval from Ohio EPA.

f. Emission Limitation:

1.35 lbs/hr of VOC

Applicable Compliance Method:

If required, compliance shall be demonstrated by conducting emission testing in accordance with the methods and procedures specified in 40 CFR Part 60, Subpart A, Methods 1 through 4 and Method 25 or 25A. Alternative U.S. EPA test methods may be used with prior approval from Ohio EPA.

g. Emission Limitation:

8.16 tons per year of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated by dividing the particulate emission factor of 1.9 lbs/mmscf by 1020 Btu/scf, and then multiplying by the maximum capacity of the burner (250 mmBtu/hr), times 8760 hours of operation per year, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual limitation.

The particulate emission factor was obtained from AP-42, 5th Edition, Section 1.4, Table 1.4-2, dated July, 1998.

h. Emission Limitation:

28.90 tons per year of SO_2

Applicable Compliance Method:

Compliance shall be demonstrated by dividing the SO_2 emission factor of 26.92 lbs/mmscf by 950 Btu/scf (average heat content of RFG), and then multiplying by the maximum capacity of the burner (250 mmBtu/hr), times 8760 hours of

operation per year, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual limitation.

The SO_2 emission factor was calculated by first converting the 40 CFR Part 60, Subpart J H_2S emission limitation of 0.10 gr/dscf to 14.3 lbs/mmscf by dividing by 7000 gr/lb and then multiplying by 1 million. Then 14.3 lb of H_2S per mmscf was multiplied by 64 lbs of SO_2 per mole, and then divided by 34 lbs of H_2S per mole.

i. Emission Limitation:

131.40 tons per year of NOx

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the manufacturer supplied NOx emission factor of 0.12 lb/mmBtu by the maximum capacity of the burner (250 mmBtu/hr), times 8760 hours of operation per year, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual limitation.

j. Emission Limitation:

90.18 tons per year of CO

Applicable Compliance Method:

Compliance shall be demonstrated by dividing the CO emission factor of 84 lbs/mmscf by 1020 Btu/scf, and then multiplying by the maximum capacity of the burner (250 mmBtu/hr), times 8760 hours of operation per year, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual limitation.

The CO emission factor was obtained from AP-42, 5th Edition, Section 1.4, Table 1.4-1, dated July, 1998.

k. Emission Limitation:

5.90 tons per year of VOC

Applicable Compliance Method:

Compliance shall be demonstrated by dividing the VOC emission factor of 5.5 lbs/mmscf by 1020 Btu/scf, and then multiplying by the maximum capacity of the burner (250 mmBtu/hr), times 8760 hours of operation per year, and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual limitation.

The VOC emission factor was obtained from AP-42, 5th Edition, Section 1.4, Table 1.4-2, dated July, 1998.

l. Emission Limitation:

Refinery fuel gas shall not contain hydrogen sulfide (H_2S) in excess of 230 mg/dscm (0.10 gr/dscf)

Applicable Compliance Method:

Ongoing compliance with the hydrogen sulfide emission limitation(s) contained in this permit, 40 CFR Part 60, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the requirements of 40 CFR Part 60.

In accordance with 40 CFR 60.160(e), if required, the permittee shall determine compliance with the H2S standard as follows: Method 11, 15, 15A or 16 shall be used to determine the H2S concentration. The gases entering the sampling train should be at about atmospheric pressure. If the pressure in the refinery fuel gas lines is relatively high, a flow control valve may be used to reduce the pressure. If the line pressure is high enough to operate the sampling train without a vacuum pump, the pump may be eliminated from the sampling train. The sample shall be drawn from a point near the centroid of the fuel gas line.

For Method 11, the sampling time and sample volume shall be at least 10 minutes and 0.010 dscm (0.35 dscf). Two samples of equal sampling times shall be taken at about 1-hour intervals. The arithmetic average of these two samples shall constitute a run. For most fuel gases, sampling times exceeding 20 minutes may result in depletion of the collection solution, although fuel gases containing low concentrations of H2S may necessitate sampling for longer periods of time.

For Method 15 or 16, at least three injects over a 1-hour period shall constitute a run.

For Method 15A, a 1-hour sample shall constitute a run.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR 60.106(e), 40 CFR 60.13 and 40 CFR Part 60, Appendices B & F]

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months of the effective date of this permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for NOx.

c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate: for NOx, Methods 1 through 4 and 7 of 40 CFR

Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by TES.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to TES. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in TES's refusal to accept the results of the emission test(s).

Personnel from TES shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to TES within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from TES.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

6. B053, H-9501

Operations, Property and/or Equipment Description:

B053 - 97 mmBtu/hr heater [H-9501] fired with refinery fuel gas, a mixture of refinery process gas, landfill gas and/or natural gas, which may be fired individually or in combination; using a hydrogen sulfide continuous emission monitoring system (H_2S CEMS).

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-01319 issued 7/10/2003)	8.58 pounds of carbon monoxide (CO) per hour, 37.57 tons of CO per year; 4.17 pounds of nitrogen oxides (NOx) per hour, 18.27 tons of NOx per year; 1.94 pounds of particulate emissions (PE) per hour, 8.50 tons of PE per year; 2.61 pounds of sulfur dioxide (SO_2) per hour, 11.43 tons of SO_2 per year; 0.56 pound of volatile organic compounds (VOC), 2.46 tons of VOC per year; and See b)(2)a.
b.	OAC rule 3734-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-10(B)(1)	0.020 pound of PE per mmBtu of actual heat input.
d.	OAC rule 3745-18-54(O)(1)	See b)(2)b.
e.	40 CFR Part 60, Subpart J (40 CFR 60.100-109) [In accordance with 40 CFR 60.100(a) and as defined in 60.101(g), this emission unit is a fuel gas combustion device in a petroleum facility.]	See b)(2)c., b)(2)e. and b)(2)f.
f.	40 CFR Part 63, Subpart DDDDD	Applicable Emission Limits in Tables 1 and 2; Work Practice Standards in Table 3 and Operating Limits in Table 4 to Subpart DDDDD of 40 CFR Part 63 (subject to change based on the issuance of the Final Action on Reconsideration of 40 CFR Part 63, Subpart DDDDD by U.S. EPA). See b)(2)d.

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-10(B)(1) and 40 CFR Part 60, Subpart J.

b. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

c. The permittee shall not burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H_2S) in excess of 230 mg/dscm (0.10 gr/dscf). The combustion in a flare of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from this paragraph.

d. The requirements of 40 CFR Part 63, Subpart DDDDD are currently effective due to the January 9, 2012 decision by the United States District Court for the District of Columbia to vacate the administrative stay that U.S. EPA put in place during the reconsideration of the March, 2011 final rules. On February 7, 2012, U.S. EPA issued a “No Action Assurance“ letter to facilities and indicated that U.S. EPA will exercise its enforcement discretion to not pursue enforcement action of violations of the Initial Notification deadlines established in the rule. This letter

further notes that U.S. EPA has proposed revisions to the compliance dates for all units (the date by which a unit must be in compliance with the substantive requirements in the Boiler MACT rule) and to the subcategories for some units. U.S. EPA plans to issue a Final Action on Reconsideration of 40 CFR Part 63, Subpart DDDDD in the spring of 2012.

e. The permittee shall maintain a written quality assurance/quality control plan for the continuous hydrogen sulfide monitoring system, designed to ensure continuous valid and representative readings of hydrogen sulfide emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

[40 CFR 60.13] and [40 CFR Part 60, Appendix F]

f. The continuous emission monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

[40 CFR 60.2] and/or [40 CFR 63.2] and [Appendix F to 40 CFR Part 60]

c) Operational Restrictions

(1) The permittee shall burn only refinery fuel gas and/or natural gas in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than refinery fuel gas and/or natural gas, the permittee shall maintain a record of the type, quantity, sulfur content in pound(s) of sulfur per mmdscf, and heating value in Btu/dscf of the fuel burned.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) [60.105(a)(4) & (a)(4)(i)-(iii)]
A continuous monitoring systems shall be installed, calibrated, maintained, and operated by the permittee subject to the provisions of 40 CFR 60, Subpart J, as follows: an instrument for continuously monitoring and recording the concentration (dry basis) of H_2S in fuel gases before being burned in any fuel gas combustion device.

a. The span value for this instrument is 425 mg/dscm H_2S.

b. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H_2S in the fuel gas being burned.

c. The performance evaluations for this H_2S monitor under 40 CFR 60.13(c) shall use Performance Specification 7 from Appendix B. Method 11, 15, 15A, 16 shall be used for conducting the relative accuracy evaluations.

(3) [40 CFR 60.105(e)(3)(ii)]
For the purpose of reports under 40 CFR Part 60.7(c), periods of excess emissions that shall be determined and reported are defined as follows:

all rolling, 3-hour periods during which the average concentration of H_2S as measured by the H_2S CEMS under 40 CFR Part 60.105(a)(4) exceeds 230 mg/dscm (0.10 gr/dscf).

NOTE: All averages, except for opacity, shall be determined as the arithmetic average of the applicable 1-hour averages, e.g., the rolling, 3-hour average shall be determined as the arithmetic average of three contiguous 1-hour averages.

(4) The permittee shall maintain on site, the document of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous hydrogen sulfide monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 7. The letter/document of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendix B]

(5) The permittee shall operate and maintain equipment to continuously monitor and record hydrogen sulfide emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

The permittee shall maintain records of all data obtained by the continuous hydrogen sulfide monitoring system including, but not limited to:

a. emissions of hydrogen sulfide in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;

b. emissions of hydrogen sulfide, in units of the applicable standard(s) and in the appropriate averaging period;

c. results of quarterly cylinder gas audits;

d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

f. hours of operation of the emissions unit, continuous hydrogen sulfide monitoring system, and control equipment;

g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous hydrogen sulfide monitoring system;

h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous hydrogen sulfide monitoring system; as well as,

i. the reason (if known) and the corrective actions taken (if any) for each such event in (g) and (h).

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendices B & F]

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas and/or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous hydrogen sulfide monitoring system:

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of hydrogen sulfide emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as, the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).

b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

i. the facility name and address;

ii. the manufacturer and model number of the continuous hydrogen sulfide and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;

v. the total operating time (hours) of the emissions unit;

vi. the total operating time of the continuous hydrogen sulfide monitoring system while the emissions unit was in operation;

vii. results and dates of quarterly cylinder gas audits;

viii. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

ix. unless previously submitted, the results of any relative accuracy test audit showing the continuous hydrogen sulfide monitor out-of-control and the compliant results following any corrective actions;

x. the date, time, and duration of any/each malfunction** of the continuous hydrogen sulfide monitoring system, emissions unit, and/or control equipment;

xi. the date, time, and duration of any downtime** of the continuous hydrogen sulfide monitoring system and/or control equipment while the emissions unit was in operation; and

xii. the reason (if known) and the corrective actions taken (if any) for each event in b.x. and xi.

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

** each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit

[Authority for term: 40 CFR Part 60.7]

(4) The deviation reports shall be submitted in accordance with the requirements specified in Section A - General Terms and Conditions A.2.c) of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emissions limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(1).

b. Emission Limitation:

8.58 pounds of CO per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 10 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

c. Emission Limitation:

37.57 tons of CO per year.

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable CO emission limitation (8.58 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton and, therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

d. Emission Limitation:

4.17 pounds of NOx per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 7 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

e. Emission Limitation:

18.27 tons of NOx per year.

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable NOx emission limitation (4.17 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton and, therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

f. Emission Limitation:

1.94 pounds of PE per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 5 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(9). Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

g. Emission Limitation:

8.50 tons of PE per year.

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable PE limitation (1.94 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton and, therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

h. Emission Limitation:

2.61 pounds of SO_2 per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 6 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-18-04. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

i. Emission Limitation:

11.43 tons of SO_2 per year.

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable SO_2 emission limitation (2.61 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton and, therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

j. Emission Limitation:

0.56 pound of VOC per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 25 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-21-10. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

k. Emission Limitation:

2.46 tons of VOC per year.

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable VOC emission limitation (0.56 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton and, therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

l. Emission Limitation:

0.020 pound of PE per mmBtu.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 5 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(9). Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

m. Emission Limitation:

Refinery fuel gas shall not contain hydrogen sulfide (H_2S) in excess of 230 mg/dscm (0.10 gr/dscf)

Applicable Compliance Method:

Ongoing compliance with the hydrogen sulfide emission limitation(s) contained in this permit, 40 CFR Part 60, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the requirements of 40 CFR Part 60.

In accordance with 40 CFR 60.160(e), if required, the permittee shall determine compliance with the H2S standard as follows: Method 11, 15, 15A or 16 shall be used to determine the H2S concentration. The gases entering the sampling train should be at about atmospheric pressure. If the pressure in the refinery fuel gas lines is relatively high, a flow control valve may be used to reduce the pressure. If the line pressure is high enough to operate the sampling train without a vacuum pump, the pump may be eliminated from the sampling train. The sample shall be drawn from a point near the centroid of the fuel gas line.

For Method 11, the sampling time and sample volume shall be at least 10 minutes and 0.010 dscm (0.35 dscf). Two samples of equal sampling times shall be taken at about 1-hour intervals. The arithmetic average of these two samples shall constitute a run. For most fuel gases, sampling times exceeding 20 minutes may result in depletion of the collection solution, although fuel gases containing low concentrations of H2S may necessitate sampling for longer periods of time.

For Method 15 or 16, at least three injects over a 1-hour period shall constitute a run.

For Method 15A, a 1-hour sample shall constitute a run.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR 60.106(e), 40 CFR 60.13 and 40 CFR Part 60, Appendices B & F]

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

7. B054, H-9502

Operations, Property and/or Equipment Description:

B054 - 53 mmBtu/hr process heater [H-9502] fired with refinery fuel gas, a mixture of refinery process gas, a mixture of refinery process gas, landfill gas and/or natural gas, which may be fired individually or in combination; using a hydrogen sulfide continuous emission monitoring system (H_2S CEMS).

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-01319 issued 7/10/2003)	4.69 pounds of carbon monoxide (CO) per hour, 20.53 tons of CO per year; 2.28 pounds of nitrogen oxides (NOx) per hour, 9.98 tons of NOx per year 1.06 pounds of particulate emissions (PE) per hour, 4.64 tons of PE per year; 1.42 pounds of sulfur dioxide (SO_2) per hour, 6.24 tons of SO_2 per year; 0.31 pound of volatile organic compounds (VOC), 1.34 tons of VOC per year, and See b(2)a.
b.	OAC rule 3734-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-10(B)(1)	0.020 pound of PE per mmBtu of actual heat input.
d.	OAC rule 3745-18-54(O)(1)	See b)(2)b.
e.	40 CFR Part 60, Subpart J (40 CFR 60.100-109) [In accordance with 40 CFR 60.100(a) and as defined in 60.101(g), this emission unit is a fuel gas combustion device in a petroleum facility.]	See b)(2)c., b)(2)e. and b)(2)f.
f.	40 CFR Part 63, Subpart DDDDD	Applicable Emission Limits in Tables 1 and 2; Work Practice Standards in Table 3 and Operating Limits in Table 4 to Subpart DDDDD of 40 CFR Part 63 (subject to change based on the issuance of the Final Action on Reconsideration of 40 CFR Part 63, Subpart DDDDD by U.S. EPA). See b)(2)d.

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of OAC rule 3734-17-07(A)(1), OAC rule 3745-17-10(B)(1) and 40 CFR Part 60, Subpart J.

b. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

c. The permittee shall not burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H_2S) in excess of 230 mg/dscm (0.10 gr/dscf). The combustion in a flare of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from this paragraph.

d. The requirements of 40 CFR Part 63, Subpart DDDDD are currently effective due to the January 9, 2012 decision by the United States District Court for the District of Columbia to vacate the administrative stay that U.S. EPA put in place during the reconsideration of the March, 2011 final rules. On February 7, 2012, U.S. EPA issued a “No Action Assurance“ letter to facilities and indicated that U.S. EPA will exercise its enforcement discretion to not pursue enforcement action of

violations of the Initial Notification deadlines established in the rule. This letter further notes that U.S. EPA has proposed revisions to the compliance dates for all units (the date by which a unit must be in compliance with the substantive requirements in the Boiler MACT rule) and to the subcategories for some units. U.S. EPA plans to issue a Final Action on Reconsideration of 40 CFR Part 63, Subpart DDDDD in the spring of 2012.

e. The permittee shall maintain a written quality assurance/quality control plan for the continuous hydrogen sulfide monitoring system, designed to ensure continuous valid and representative readings of hydrogen sulfide emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

[40 CFR 60.13] and [40 CFR Part 60, Appendix F]

f. The continuous emission monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

[40 CFR 60.2] and/or [40 CFR 63.2] and [Appendix F to 40 CFR Part 60]

c) Operational Restrictions

(1) The permittee shall burn only refinery fuel gas and/or natural gas in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than refinery fuel gas and/or natural gas, the permittee shall maintain a record of the type, quantity, sulfur content in pound(s) of sulfur per mmdscf, and heating value in Btu/dscf of the fuel burned.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) [60.105(a)(4) & (a)(4)(i)-(iii)]
A continuous monitoring systems shall be installed, calibrated, maintained, and operated by the permittee subject to the provisions of 40 CFR 60, Subpart J, as follows: an instrument for continuously monitoring and recording the concentration (dry basis) of H_2S in fuel gases before being burned in any fuel gas combustion device.

a. The span value for this instrument is 425 mg/dscm H_2S.

b. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H_2S in the fuel gas being burned.

c. The performance evaluations for this H_2S monitor under 40 CFR 60.13(c) shall use Performance Specification 7 from Appendix B. Method 11, 15, 15A, 16 shall be used for conducting the relative accuracy evaluations.

(3) [40 CFR 60.105(e)(3)(ii)]
For the purpose of reports under 40 CFR Part 60.7(c), periods of excess emissions that shall be determined and reported are defined as follows:

all rolling, 3-hour periods during which the average concentration of H_2S as measured by the H_2S CEMS under 40 CFR Part 60.105(a)(4) exceeds 230 mg/dscm (0.10 gr/dscf).

NOTE: All averages, except for opacity, shall be determined as the arithmetic average of the applicable 1-hour averages, e.g., the rolling, 3-hour average shall be determined as the arithmetic average of three contiguous 1-hour averages.

(4) The permittee shall maintain on site, the document of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous hydrogen sulfide monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 7. The letter/document of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendix B]

(5) The permittee shall operate and maintain equipment to continuously monitor and record hydrogen sulfide emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

The permittee shall maintain records of all data obtained by the continuous hydrogen sulfide monitoring system including, but not limited to:

a. emissions of hydrogen sulfide in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;

b. emissions of hydrogen sulfide, in units of the applicable standard(s) and in the appropriate averaging period;

c. results of quarterly cylinder gas audits;

d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

f. hours of operation of the emissions unit, continuous hydrogen sulfide monitoring system, and control equipment;

g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous hydrogen sulfide monitoring system;

h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous hydrogen sulfide monitoring system; as well as,

i. the reason (if known) and the corrective actions taken (if any) for each such event in (g) and (h).

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendices B & F]

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas and/or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous hydrogen sulfide monitoring system:

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of hydrogen sulfide emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as, the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).

b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

i. the facility name and address;

ii. the manufacturer and model number of the continuous hydrogen sulfide and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;

v. the total operating time (hours) of the emissions unit;

vi. the total operating time of the continuous hydrogen sulfide monitoring system while the emissions unit was in operation;

vii. results and dates of quarterly cylinder gas audits;

viii. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

ix. unless previously submitted, the results of any relative accuracy test audit showing the continuous hydrogen sulfide monitor out-of-control and the compliant results following any corrective actions;

x. the date, time, and duration of any/each malfunction** of the continuous hydrogen sulfide monitoring system, emissions unit, and/or control equipment;

xi. the date, time, and duration of any downtime** of the continuous hydrogen sulfide monitoring system and/or control equipment while the emissions unit was in operation; and

xii. the reason (if known) and the corrective actions taken (if any) for each event in b.x. and xi.

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

** each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit

[Authority for term: 40 CFR Part 60.7]

(4) The deviation reports shall be submitted in accordance with the requirements specified in Section A - General Terms and Conditions A.2.c) of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emissions limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(1).

b. Emission Limitation:

4.69 pounds of CO per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 10 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA approved test methods can be used with prior approval from Ohio EPA.

c. Emission Limitation:

20.53 tons of CO per year.

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable CO emission limitation (4.69 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton and, therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

d. Emission Limitation:

2.28 pounds of NOx per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 7 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

e. Emission Limitation:

9.98 tons of NOx per year.

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable NOx emission limitation (2.28 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton and, therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

f. Emission Limitation:

1.06 pounds of PE per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 5 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(9). Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

g. Emission Limitation:

4.64 tons of PE per year.

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable PE limitation (1.06 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton and, therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

h. Emission Limitation:

1.42 pounds of SO_2 per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 6 of 40

CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-18-04. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

i. Emission Limitation:

6.24 tons of SO_2 per year.

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable SO_2 emission limitation (1.42 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton and, therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

j. Emission Limitation:

0.31 pound of VOC per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 25 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-21-10. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

k. Emission Limitation:

1.34 tons of VOC per year.

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable VOC emission limitation (0.31 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton and, therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

l. Emission Limitation:

0.020 pound of PE per mmBtu.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 5 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(9). Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

m. Emission Limitation:

Refinery fuel gas shall not contain hydrogen sulfide (H_2S) in excess of 230 mg/dscm (0.10 gr/dscf)

Applicable Compliance Method:

Ongoing compliance with the hydrogen sulfide emission limitation(s) contained in this permit, 40 CFR Part 60, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the requirements of 40 CFR Part 60.

In accordance with 40 CFR 60.160(e), if required, the permittee shall determine compliance with the H2S standard as follows: Method 11, 15, 15A or 16 shall be used to determine the H2S concentration. The gases entering the sampling train should be at about atmospheric pressure. If the pressure in the refinery fuel gas lines is relatively high, a flow control valve may be used to reduce the pressure. If the line pressure is high enough to operate the sampling train without a vacuum pump, the pump may be eliminated from the sampling train. The sample shall be drawn from a point near the centroid of the fuel gas line.

For Method 11, the sampling time and sample volume shall be at least 10 minutes and 0.010 dscm (0.35 dscf). Two samples of equal sampling times shall be taken at about 1-hour intervals. The arithmetic average of these two samples shall constitute a run. For most fuel gases, sampling times exceeding 20 minutes may result in depletion of the collection solution, although fuel gases containing low concentrations of H2S may necessitate sampling for longer periods of time.

For Method 15 or 16, at least three injects over a 1-hour period shall constitute a run.

For Method 15A, a 1-hour sample shall constitute a run.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR 60.106(e), 40 CFR 60.13 and 40 CFR Part 60, Appendices B & F]

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

8. B055, H-6306

Operations, Property and/or Equipment Description:

B055 - 40.0 mmBtu/hr heater [H64] with low-NOx burners, fired with natural gas or refinery process gas, a mixture of refinery fuel gas, natural gas and landfill gas, which may be fired individually or in combination; and a hydrogen sulfide continuous emission monitoring system (H_2S CEMS).

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-01421 issued 12/20/05)	Visible particulate emissions shall not exceed 10% opacity as a 6-minute average; 3.29 pounds per hour carbon monoxide (CO) emissions and 14.43 tons per year CO emissions; 1.60 pounds per hour nitrogen oxides (NOx) emissions and 7.01 tons per year NOx emissions; 0.08 pound per hour particulate emissions (PE) and 0.35 ton per year PE; 0.30 pound per hour particulate matter less than 10 microns emissions (PM_{10}) and 1.31 tons per year PM_{10} emissions; 1.13 pounds per hour sulfur dioxide (SO_2) emissions and 4.95 tons per year SO_2; and 0.21 pound per hour volatile organic compound (VOC) emissions and 0.94 ton per year VOC emissions. See sections A.I.2.a.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-17-07(A)	See b)(2)b.
c.	OAC rule 3745-17-10(B)(1)	See b)(2)b.
d.	OAC rule 3745-18-54(O)(1)	See b)(2)b.
e.	40 CFR Part 60, Subpart J (40 CFR 60.100-109) [In accordance with 40 CFR 60.100(a) and as defined in 60.101(g), this emission unit is a fuel gas combustion device in a petroleum facility.]	See b)(2)c., b)(2)e. and b)(2)f.
f.	40 CFR Part 63, Subpart DDDDD	Applicable Emission Limits in Tables 1 and 2; Work Practice Standards in Table 3 and Operating Limits in Table 4 to Subpart DDDDD of 40 CFR Part 63 (subject to change based on the issuance of the Final Action on Reconsideration of 40 CFR Part 63, Subpart DDDDD by U.S. EPA). See b)(2)d.

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart J.

b. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

c. The permittee shall not burn in this emissions unit any refinery fuel gas that has a volume-weighted, rolling, 3-hour average H_2S concentration greater than 230 milligrams per dry standard cubic meter (0.10 grain per dry standard cubic foot).

d. The requirements of 40 CFR Part 63, Subpart DDDDD are currently effective due to the January 9, 2012 decision by the United States District Court for the District of Columbia to vacate the administrative stay that U.S. EPA put in place during the reconsideration of the March, 2011 final rules. On February 7, 2012, U.S. EPA issued a “No Action Assurance“ letter to facilities and indicated that U.S. EPA will exercise its enforcement discretion to not pursue enforcement action of violations of the Initial Notification deadlines established in the rule. This letter further notes that U.S. EPA has proposed revisions to the compliance dates for all units (the date by which a unit must be in compliance with the substantive

requirements in the Boiler MACT rule) and to the subcategories for some units. U.S. EPA plans to issue a Final Action on Reconsideration of 40 CFR Part 63, Subpart DDDDD in the spring of 2012.

e. The permittee shall maintain a written quality assurance/quality control plan for the continuous hydrogen sulfide monitoring system, designed to ensure continuous valid and representative readings of hydrogen sulfide emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

[40 CFR 60.13] and [40 CFR Part 60, Appendix F]

f. The continuous emission monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

[40 CFR 60.2] and/or [40 CFR 63.2] and [Appendix F to 40 CFR Part 60]

c) Operational Restrictions

(1) The permittee shall burn only natural gas or refinery fuel gas in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than natural gas or refinery fuel gas, the permittee shall maintain a record of the type, quantity, sulfur content in pound(s) of sulfur per mmdscf, and heating value in Btu/dscf of the fuel burned.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) [60.105(a)(4) & (a)(4)(i)-(iii)]
A continuous monitoring systems shall be installed, calibrated, maintained, and operated by the permittee subject to the provisions of 40 CFR 60, Subpart J, as follows: an instrument for continuously monitoring and recording the concentration (dry basis) of H_2S in fuel gases before being burned in any fuel gas combustion device.

a. The span value for this instrument is 425 mg/dscm H_2S.

b. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H_2S in the fuel gas being burned.

c. The performance evaluations for this H_2S monitor under 40 CFR 60.13(c) shall use Performance Specification 7 from Appendix B. Method 11, 15, 15A, 16 shall be used for conducting the relative accuracy evaluations.

(3) [40 CFR 60.105(e)(3)(ii)]
For the purpose of reports under 40 CFR Part 60.7(c), periods of excess emissions that shall be determined and reported are defined as follows:

all rolling, 3-hour periods during which the average concentration of H_2S as measured by the H_2S CEMS under 40 CFR Part 60.105(a)(4) exceeds 230 mg/dscm (0.10 gr/dscf).

NOTE: All averages, except for opacity, shall be determined as the arithmetic average of the applicable 1-hour averages, e.g., the rolling, 3-hour average shall be determined as the arithmetic average of three contiguous 1-hour averages.

(4) The permittee shall maintain on site, the document of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous hydrogen sulfide monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 7. The letter/document of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendix B]

(5) The permittee shall operate and maintain equipment to continuously monitor and record hydrogen sulfide emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

The permittee shall maintain records of all data obtained by the continuous hydrogen sulfide monitoring system including, but not limited to:

a. emissions of hydrogen sulfide in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;

b. emissions of hydrogen sulfide, in units of the applicable standard(s) and in the appropriate averaging period;

c. results of quarterly cylinder gas audits;

d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

f. hours of operation of the emissions unit, continuous hydrogen sulfide monitoring system, and control equipment;

g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous hydrogen sulfide monitoring system;

h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous hydrogen sulfide monitoring system; as well as,

i. the reason (if known) and the corrective actions taken (if any) for each such event in (g) and (h).

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendices B & F]

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas or refinery fuel gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous hydrogen sulfide monitoring system:

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of hydrogen sulfide emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as, the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).

b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

i. the facility name and address;

ii. the manufacturer and model number of the continuous hydrogen sulfide and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;

v. the total operating time (hours) of the emissions unit;

vi. the total operating time of the continuous hydrogen sulfide monitoring system while the emissions unit was in operation;

vii. results and dates of quarterly cylinder gas audits;

viii. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

ix. unless previously submitted, the results of any relative accuracy test audit showing the continuous hydrogen sulfide monitor out-of-control and the compliant results following any corrective actions;

x. the date, time, and duration of any/each malfunction** of the continuous hydrogen sulfide monitoring system, emissions unit, and/or control equipment;

xi. the date, time, and duration of any downtime** of the continuous hydrogen sulfide monitoring system and/or control equipment while the emissions unit was in operation; and

xii. the reason (if known) and the corrective actions taken (if any) for each event in b.x. and xi.

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

** each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit

[Authority for term: 40 CFR Part 60.7]

(4) The deviation reports shall be submitted in accordance with the requirements specified in Section A - General Terms and Conditions A.2.c) of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emissions limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

10% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(1).

b. Emission Limitation:

3.29 pounds of CO per hour.

Applicable Compliance Method:

Multiply the uncontrolled emissions factor listed in AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1. EMISSION FACTORS FOR NITROGEN OXIDES (NOx) AND CARBON MONOXIDE (CO) FROM NATURAL GAS COMBUSTION, dated 7/98 (0.88 lb/mmBtu of fuel gas burned) corrected for heating value by the maximum heat input of the burners (40 mmBtu/hr). The emission factor is based on the refinery fuel gas heating value of 950 Btu/scf. If required, compliance shall be demonstrated based upon the procedures specified in Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

c. Emission Limitation:

14.43 tons of CO per year.

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable CO emission limitation (3.29 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

d. Emission Limitation:

1.60 pounds of NOx per hour.

Applicable Compliance Method:

Multiply the vendor supplied NOx emission factor of 0.04 lb/mmBtu by the maximum heat input of the burners (40 mmBtu/hr) to determine the hourly NOx emissions. If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 7E of 40 CFR part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

e. Emission Limitation:

7.01 tons of NOx per year.

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable NOx emission limitation (1.60 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

f. Emission Limitation:

0.08 pound of PE per hour.

Applicable Compliance Method:

Multiply the uncontrolled emissions factor listed in AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, TABLE 1.4-2. EMISSION FACTORS FOR CRITERIA POLLUTANTS AND GREENHOUSE GASES FROM NATURAL GAS COMBUSTION, dated 7/98 (0.002 lb/mmBtu of fuel gas burned) corrected for heating value by the maximum heat input of the burners (40 mmBtu/hr). The emission factor is based on the refinery fuel gas heating value of 950 Btu/scf. If required, compliance shall be demonstrated based upon the procedures specified in Methods 1 through 5 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(9). Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

g. Emission Limitation:

0.35 ton of PE per year.

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable PE limitation (0.08 lbs/hr) by the maximum annual hours of operation (8760 hrs), and

then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

h. Emission Limitation:

0.30 pound per hour of PM_{10} emissions

Applicable Compliance Method:

Multiply the uncontrolled emissions factor listed in AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, TABLE 1.4-2. EMISSION FACTORS FOR CRITERIA POLLUTANTS AND GREENHOUSE GASES FROM NATURAL GAS COMBUSTION, dated 7/98 (0.0075 lb/mmBtu of fuel gas burned) corrected for heating value by the maximum heat input of the burners (40 mmBtu/hr). The emission factor is based on the refinery fuel gas heating value of 950 Btu/scf. If required, compliance shall be demonstrated based upon the procedures specified in Methods 201 and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

i. Emission Limitation:

1.31 tons per year of PM_{10} emissions

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable PM_{10} limitation (0.30 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

j. Emission Limitation:

1.13 pounds of SO_2 per hour.

Applicable Compliance Method:

Allowable emissions are based on operation at maximum capacity with a maximum H_2S concentration of 0.10 gr/dscf. Therefore compliance with the 0.10 grain H_2S per dry standard cubic foot of fuel gas burned as a volume-weighted, rolling, 3-hour average emission limitation constitutes compliance with the hourly SO_2 emission limitation. If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 4 and 6 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-18-04.

k. Emission Limitation:

4.95 tons of SO_2 per year.

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable SO_2 emission limitation (1.13 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

l. Emission Limitation:

0.21 pound of VOC per hour.

Applicable Compliance Method:

Multiply the uncontrolled emissions factor listed in AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, TABLE 1.4-2. EMISSION FACTORS FOR CRITERIA POLLUTANTS AND GREENHOUSE GASES FROM NATURAL GAS COMBUSTION, dated 7/98 (0.005 lb/mmBtu of fuel gas burned) corrected for heating value by the maximum heat input of the burners (40 mmBtu/hr). The emission factor is based on the refinery fuel gas heating value of 950 Btu/scf. If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

m. Emission Limitation:

0.94 ton of VOC per year.

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable VOC emission limitation (0.21 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

n. Emission Limitation:

Refinery fuel gas shall not contain hydrogen sulfide (H_2S) in excess of 230 mg/dscm (0.10 gr/dscf)

Applicable Compliance Method:

Ongoing compliance with the hydrogen sulfide emission limitation(s) contained in this permit, 40 CFR Part 60, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the requirements of 40 CFR Part 60.

In accordance with 40 CFR 60.160(e), if required, the permittee shall determine compliance with the H2S standard as follows: Method 11, 15, 15A or 16 shall be used to determine the H2S concentration. The gases entering the sampling train should be at about atmospheric pressure. If the pressure in the refinery fuel gas lines is relatively high, a flow control valve may be used to reduce the pressure. If the line pressure is high enough to operate the sampling train without a vacuum pump, the pump may be eliminated from the sampling train. The sample shall be drawn from a point near the centroid of the fuel gas line.

For Method 11, the sampling time and sample volume shall be at least 10 minutes and 0.010 dscm (0.35 dscf). Two samples of equal sampling times shall be taken at about 1-hour intervals. The arithmetic average of these two samples shall constitute a run. For most fuel gases, sampling times exceeding 20 minutes may result in depletion of the collection solution, although fuel gases containing low concentrations of H2S may necessitate sampling for longer periods of time.

For Method 15 or 16, at least three injects over a 1-hour period shall constitute a run.

For Method 15A, a 1-hour sample shall constitute a run.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR 60.106(e), 40 CFR 60.13 and 40 CFR Part 60, Appendices B & F]

g) Miscellaneous Requirements

(1) None.

9. J005, Propane Truck Loading Rack

Operations, Property and/or Equipment Description:

J005 - propane truck loading rack (formerly Z007)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	40 CFR Part 63, Subpart A	exempt, see b)(2)a.
Equipment Leaks		
b.	40 CFR Part 63, Subpart CC	exempt, see b)(2)a.
c.	OAC rule 3745-21-09(T)	See b)(2)b.

(2) Additional Terms and Conditions

a. This unit is exempt from 40 CFR Part 63, Subparts A and CC because it does not load organic hazardous air pollutants (HAPS) as defined by 40 CFR 63.641.

b. The leak detection and repair requirements of OAC rule 3745-21-09(T) applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

10. J006, LPG Railcar Loading

Operations, Property and/or Equipment Description:

J006 (formerly P021) - Propylene-Propane railcar load rack with 6 loading arms using pressurized loading or uses submerged fill if loading heavy oil

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-01447 issued 9/29/06 and modified on 1/23/07, 2/23/09 1/14/10, 5/28/10, 1/27/2011 and 1/6/2012 - P0108943)	1.60 tons per year volatile organic compounds (VOC) based upon a rolling 12-month summation of the monthly emissions see b)(2)a.
Equipment Leaks		
b.	40 CFR 63, Subpart A (40 CFR 63.1-16)	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 Subpart CC of 40 CFR part 63.
c.	40 CFR Part 63, Subpart CC (40 CFR 63.640-656) [In accordance with 40 CFR 63.640(a), 63.640(c)(4) and 63.641, this emissions unit has an existing facility-wide LDAR program at an existing petroleum refinery subject to the emission limitations and control measures specified in this Subpart.]	In accordance with 40 CFR 63.648(a), each permittee of an existing source shall comply with the provisions of 40 CFR 60, Subpart VV and 63.648(b) except as provided in 63.648(a)(1), (a)(2) and 63.648(c) through (i). Each permittee of a new source shall comply with 40 CFR 63, subpbart H except as provided in 63.648(c) through (i). See b)(2)b.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-21-09(T)	see b)(2)c.

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(T) and 40 CFR part 63, Subparts A and C.

b. Refer to Section C, emissions unit P801, of this permit for the applicable equipment leak provisions found in b)(2), c), d), e) and f), referencing 40 CFR part 60, Subpart VV.

c. The leak detection and repair requirements of OAC rule 3745-21-09(T) applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall monitor and record the monthly throughput (in gallons) of this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall calculate and record monthly, the emissions of VOC from this emissions unit as a rolling, 12-month summation of the monthly emissions (in tons per year).

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

(2) The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month emission limitation for J006. These reports shall be submitted in accordance with the reporting requirements specified in Section A - General Terms and Conditions, A.2.c) of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emissions limitation(s) in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission limitation:

1.60 tons of VOC per year, based upon a rolling, 12-month summation of the monthly emissions

Applicable compliance method:

Compliance with the annual emission limitation shall be demonstrated through the monitoring and record keeping requirements of d). While loading the propane-propylene (PP) mix, the annual emissions shall be calculated using the company supplied emission factor of 0.0935 lb VOC per 1000 gallons multiplied by the annual throughput and divide by 2000 lbs per ton. While loading heavy oil, the annual emissions shall be calculated using the company supplied emission factor of 0.01 lb VOC per 1000 gallons loaded multiplied by the annual throughput and divide by 2000 lbs per ton and added to the previous calculated emissions for the PP mix.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

11. P008, PL9 Flare

Operations, Property and/or Equipment Description:

P008 - Plant 9 flare, steam assisted; the flare is used as a safety device to control hydrocarbon emissions to the atmosphere from process vents, malfunctions, and emergency relief.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI P0107345 issued March, 2011)	The permittee requested that this unit become an affected facility subject to the requirements of 40 CFR Part 60, Subparts A and J. See b)(2)a. [Per the Consent Decree (section J.48a.) as entered on March 14, 2006, this hydrocarbon flaring device shall become an affected facility subject to the requirements of NSPS Subparts A and J for fuel gas combustion devices by Dec. 31, 2010.]
b.	40 CFR Part 63, Subpart CC (40 CFR 63.640-656) [In accordance with 40 CFR 63.640(c)(4) and 63.644(a)(2), this emissions unit acts as a control device for equipment subject to Subpart CC]	The permittee shall reduce the emissions of organic HAP's using a flare meeting the requirements of 40 CFR 63.11(b).

c.	40 CFR Part 63, Subpart H (40 CFR 63.160-183 [In accordance with 40 CFR 63.172(d), this emissions unit acts as a control device for equipment subject to Subpart H]	In accordance with 63.172(d), flares used to comply with 40 CFR Part 63, Subpart H shall comply with the requirements of 40 CFR 63.11(b) of Subpart A. See b)(2)b.
d.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours see c)(1)

(2) Additional Terms and Conditions

a. 40 CFR 60.104(a)(1)]
The permittee shall not burn in any fuel gas combustion device any fuel gas that contains a hydrogen sulfide (H_2S) in excess of 230 mg/dscm (0.10 gr/dscf). The combustion in a flare of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from this paragraph.

b. Pursuant to 40 CFR Part 63.160(b)(2), because this flare is a control device for an emissions unit that is subject to 40 CFR Part 63, Subpart H, the flare will be required to comply only with the provisions of 40 CFR Part 63, Subpart H.

c) Operational Restrictions

(1) [CD, section J.48.a. and PTI P0107345]
The permittee shall meet the NSPS Subparts A and J requirements by using one or any combination of the following methods:

a. Operating and maintaining a flare gas recovery system to prevent continuous or routine combustion in this emissions unit. Use of a flare gas recovery system on a flare obviates the need to continuously monitor emissions as otherwise required by 40 CFR 60.105(a)(4);

b. Eliminating the routes of continuous or intermittent, routinely-generated refinery fuel gases to this emissions unit and operating the flaring device such that it only receives non-routinely generated gases, process upset gases, fuel gas released as a result of relief valve leakage or gases released due to other emergency malfunctions; or

c. Operating this emissions unit as a fuel gas combustion device, monitoring it for the continuous or intermittent, routinely-generated refinery fuel gas streams put into the flare header, with:

i. a CEMS as required by 40 CFR 60.105(a)(4); or

ii. a parametric monitoring system approved by U.S. EPA under 40 CFR 60.13(i); or

iii. an alternative monitoring system approved by U.S. EPA under 40 CFR 60.13(i).

NOTE: The permittee sent an Alternative Monitoring Plan to U.S. EPA dated Oct. 25, 2010 requesting approval. U.S. EPA approved the alternative monitoring plan submitted by Toledo Refining Co. (formerly Sunoco) on Dec. 21, 2010. The permittee shall demonstrate compliance with 40 CFR Part 60, Subparts A and J by monitoring the continuous and intermittent, routinely-generated refinery fuel gas streams put into the flare header using a combination of monitoring techniques (depending on the stream) which includes: CEMS, parametric monitoring and/or an alternative monitoring system containing the components outlined in Appendix H of the 2006 Consent Decree.

(2) [CD, section L.64. and PTI P0107345] CONTROL OF HYDROCARBON FLARING INCIDENTS

The permittee shall at all times and to the extent practicable, including during periods of Startup, Shutdown, upset and/or Malfunction of refinery process units, implement good air pollution control practices to minimize emissions from its Hydrocarbon Flaring Devices consistent with 40 CFR 60.11(d). The permittee shall implement such good air pollution control practices to minimize Hydrocarbon Flaring Incidents by investigating, reporting and correcting all Hydrocarbon Flaring Incidents in accordance with the procedures in Paragraph 64 of the Consent Decree entered March 14, 2006.

As defined by the Consent Decree, “Hydrocarbon Flaring Incident” or “HC Flaring Incident” shall mean the continuous or intermittent Hydrocarbon Flaring, except for Acid Gas or Sour Water Stripper Gas or Tail Gas, at a Hydrocarbon Flaring Device that results in the emission of sulfur dioxide equal to, or greater than five-hundred 500 pounds in any 24-hour period; provided, however, that if 500 pounds or more of sulfur dioxide have been emitted in any 24-hour period and flaring continues into subsequent, contiguous, non-overlapping 24-hour period(s), each period of which results in emissions equal to, or in excess of 500 pounds of sulfur dioxide, then only one HC Flaring Incident shall have occurred. Subsequent, contiguous, non-overlapping periods are measured from the initial commencement of Flaring within the HC Flaring Incident.

(3) [63.11] FLARE REQUIREMENTS - 40 CFR Part 63, Subpart A

The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart A including the following sections:

63.11(a)	*Control device requirements*: *Applicability.* 40 CFR 63.11 contains requirements for control devices used to comply with provisions in relevant standards referring directly or indirectly to this section.

63.11(b)(1)	Permittees using flares shall monitor these control devices to assure that they are operated and maintained in conformance with their designs.
63.11(b)(2)	Flares shall be steam-assisted, air-assisted, or non-assisted.
63.11(b)(3)	Flares shall be operated at all times when emissions may be vented to them.
63.11(b)(5)	Flares shall be operated with a flame present at all times. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.
63.11(b)	The permittee has the choice of adhering to the heat content specifications in 40 CFR Part 63.11(b)(6)(ii), and the maximum tip velocity specifications in 63.11(b)(7) or adhering to the requirements in 63.11(b)(6)(i) (non-assisted flare).
63.11(b)(6)(ii)	Flares shall be used only with the net heating value of the gas being combusted at 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted. The net heating value of the gas being combusted in a flare shall be calculated using the equation found in 40 CFR Part 63.11(b)(6)(ii).
63.11(b)(7)(i)	Steam-assisted and non-assisted flares shall be designed for and operated with an exit velocity less than 18.3 m/sec (60 ft/sec), except as provided in 40 CFR Part 63.11(b)(7)(ii) and (b)(7)(iii). The actual exit velocity of a flare shall be determined by dividing by the volumetric flow rate of gas being combusted (in units of emission standard temperature and pressure), as determined by Test Methods 2, 2A, 2C, or 2D in Appendix A to 40 CFR Part 60, of this chapter, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.
63.11(b)(7)(ii)	Steam-assisted flares with an exit velocity, equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec), are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).
63.11(b)(7)(iii)	Steam-assisted flares operated with an exit velocity, less than the velocity V_{max}, as determined by the method specified in this paragraph, but less than 122 m/sec (400 ft/sec) are allowed. The maximum permitted velocity, V_{max}, for flares complying with this paragraph shall be determined by the equation stated in 63.11(b)(7)(iii).

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain records which provide the following information for each known relief which results in non-smokeless operation of the flare that exceeds 5 minutes in a two hour period:

a. the date, time, and duration of the relief;

b. the flare involved;

c. the process unit(s) associated with the relief;

d. the cause of the relief; and

e. the corrective actions taken.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall record all periods during which there was no pilot flame or the flare was inoperable.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR 63.8]

(3) [CD, section J.49. and PTI P0107345] HYDROCARBON FLARING DEVICES
The permittee shall at all times and to the extent practicable, including during periods of Startup, Shutdown, upset and/or Malfunction of refinery process units, implement good air pollution control practices to minimize emissions from its Hydrocarbon Flaring Devices consistent with 40 CFR. 60.11(d). The permittee shall implement such good air pollution control practices to minimize Hydrocarbon Flaring Incidents by investigating, reporting and correcting all Hydrocarbon Flaring Incidents.

(4) [CD, section K. and PTI P0107345] ACID GAS FLARING INCIDENTS
As defined by the Consent Decree, “Acid Gas Flaring Incident” or “AG Flaring Incident” shall mean the continuous or intermittent combustion of Acid Gas and/or Sour Water Stripper Gas that results in the emission of sulfur dioxide equal to, or in excess of, 500 pounds in any 24-hour period; provided, however, that if 500 pounds or more of sulfur dioxide have been emitted in a 24-hour period and flaring continues into subsequent, contiguous, non-overlapping 24-hour period(s), each period of which results in emissions equal to, or in excess of 500 pounds of sulfur dioxide, then only one AG Flaring Incident shall have occurred. Subsequent, contiguous, non-overlapping periods are measured from the initial commencement of flaring within the AG Flaring Incident.

a. [CD, section K.52]
The permittee shall investigate the cause of Acid Gas Flaring, take reasonable steps to correct the conditions that have caused or contributed to such Acid Gas Flaring, and minimize Acid Gas Flaring. The permittee shall follow the procedures in this section "Acid Gas Flaring Incidents" to evaluate whether Acid Gas/Sour Water Stripper Gas Flaring Incidents are due to Malfunctions.

b. [CD, section K.54. a. through d.] Corrective Action.

i. In response to any AG Flaring Incident, the permittee shall take, as expeditiously as practicable, such interim and/or long-term corrective actions, if any, as are consistent with good engineering practice to minimize the likelihood of a recurrence of the Root Cause and all significant contributing causes of that AG Flaring Incident.

As defined by the Consent Decree, "Root Cause" shall mean the primary cause(s) of an AG Flaring Incident(s), or Hydrocarbon Flaring Incident as determined through a process of investigation.

ii. If EPA does not notify the permittee in writing within 45 days of receipt of the report(s) required by e)(3) that it objects to one or more aspects of the proposed corrective action(s) and schedule(s) of implementation, if any, then that (those) action(s) and schedule(s) shall be deemed acceptable for purposes of compliance with this paragraph. EPA does not, however, by its failure to object to any corrective action that the permittee may take in the future, warrant or aver in any manner that any corrective actions in the future shall result in compliance with the provisions of the Clean Air Act or its implementing regulations.

iii. If EPA objects, in whole or in part, to the proposed corrective action(s) and/or the schedule(s) of implementation or, where applicable, to the absence of such proposal(s) and/or schedule(s), it shall notify the permittee and explain the basis for its objection (s) in writing within 45 days following receipt of the report(s) required by e)(3). The permittee shall respond within 45 days to EPA's objection(s).

iv. Nothing in d)(6) or e)(3) shall be construed to limit the right of the permittee to take such corrective actions as it deems necessary and appropriate immediately following an Acid Gas Flaring Incident or in the period during preparation and review of any reports required under this paragraph.

c. [CD, section K.62.a. through c.] Emission Calculations

i. Calculation of the Quantity of Sulfur Dioxide Emissions Resulting from AG Flaring.

The quantity of SO_2 emissions resulting from AG Flaring Incident shall be calculated by the following formula:

Tons of SO_2 = [FR][TD][ConcH_2S][8.44×10^{-5}].

Where:

FR = Average Flow Rate to Flaring Device(s) during Flaring Incident in standard cubic feet per hour

TD = Total Duration of Flaring Incident in hours

$ConcH_2S$ = Average Concentration of Hydrogen Sulfide in gas during Flaring Incident (or immediately prior to Flaring Incident if all gas is being flared) expressed as a volume fraction (scf H_2S/scf gas)

8.44×10^{-5} = [lb mole H_2S/379 scf H_2S][64 lbs SO_2/lb mole H_2S][Ton/2000 lbs]

The quantity of SO_2 emitted shall be rounded to one decimal point. (Thus, for example, for a calculation that results in a number equal to 10.050 tons, the quantity of SO_2 emitted shall be rounded to 10.1 tons, and less than 10.050 shall be rounded to 10.0.) For purposes of determining the occurrence of, or the total quantity of SO_2 emissions resulting from, an AG Flaring Incident that is comprised of intermittent AG Flaring, the quantity of SO_2 emitted shall be equal to the sum of the quantities of SO_2 flared during each 24-hour period starting when the Acid Gas was first flared.

ii. Calculation of the Rate of SO_2 Emissions During AG Flaring

The rate of SO_2 emissions resulting from AG Flaring Incident shall be expressed in terms of pounds per hour and shall be calculated by the following formula:

ER = [FR][$ConcH_2S$][0.169].

Where:

ER = Emission Rate in pounds of SO_2 per hour

0.169 = [lb mole H_2S/379 scf H_2S][1.0 lb mole SO_2/1 lb mole H_2S][64 lb SO_2/1.0 lb mole SO_2]

The emission rate shall be rounded to one decimal point. (Thus, for example, for a calculation that results in an emission rate of 19.95 pounds of SO_2 per hour, the emission rate shall be rounded to 20.0 pounds of SO_2 per hour; for a calculation that results in an emission rate of 20.05 pounds of SO_2 per hour, the emission rate shall be rounded to 20.1.)

The flow of gas to the AG Flaring Device(s) ("FR") shall be as measured by the relevant flow meter or reliable flow estimation parameters. Hydrogen sulfide concentration ("$ConcH_2S$") shall be determined from the Sulfur Recovery Plant feed gas analyzer, from knowledge of the sulfur content of the process gas being flared, by direct measurement by tutwiler or draeger tube analysis or by any other method approved by EPA or the Ohio EPA. In the event that any of these data points is unavailable or inaccurate, the missing data point(s) shall be estimated according to best engineering judgment. The report required under e)(3) shall include the data used in the calculation and an explanation of the basis for any estimates of missing data points.

(5) H_2S CEM
The permittee shall install, calibrate, maintain, and operate continuous monitoring systems as follows:

a. an instrument for continuously monitoring and recording the concentration (dry basis) of H_2S in fuel gases before being burned in any fuel gas combustion device.

i. The span value for this instrument is 425 mg/dscm H_2S.

ii. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H_2S in the fuel gas being burned.

iii. The performance evaluations for this H_2S monitor under 40 CFR 60.13(c) shall use Performance Specification 7. Method 11, 15, 15A, or 16 shall be used for conducting the relative accuracy evaluations.

b. The permittee shall maintain records of data obtained by the continuous hydrogen sulfide monitoring system including, but not limited to:

i. emissions of hydrogen sulfide in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;

ii. emissions of hydrogen sulfide, in all units of the applicable standard(s) and in the appropriate averaging period;

iii. results of quarterly cylinder gas audits;

iv. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

v. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

vi. hours of operation of the emissions unit, continuous hydrogen sulfide monitoring system, and control equipment;

vii. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous hydrogen sulfide monitoring system;

viii. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous hydrogen sulfide monitoring system; as well as,

ix. the reason (if known) and the corrective actions taken (if any) for each such event in (vii) and (viii).

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

NOTE: Valid minute by minute CEMS data shall not be required during periods in which scheduled CEMS system maintenance events (such as system blow-backs) occur. Minute by minute data recorded during a scheduled maintenance event shall be flagged as invalid due to the scheduled maintenance event, and not used in future compliance determination calculations.

In lieu of installing a hydrogen sulfide continuous monitoring system specified under 40 CFR 60.105(a)(4), the permittee may request pursuant to 40 CFR 60.13(i) permission from U.S. EPA to use an alternative monitoring plan. The permittee made such a request and the proposed alternative monitoring plan was approved by U.S. EPA on Dec. 21, 2010. The submitted protocol met the requirements of Appendix H of the Consent Decree entered March 14, 2006. Toledo Refining Co. will demonstrate compliance as set forth in the AMP and any future updates.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendices B & F]

(6) The permittee shall develop and maintain a written quality assurance/quality control plan for the continuous hydrogen sulfide monitoring system, designed to ensure continuous valid and representative readings of hydrogen sulfide emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

NOTE: Per the Consent Decree entered March 14, 2006, (section J.48.a.iii.(C) and Appendix H of the CD), the above does not apply if the alternative monitoring protocol for H_2S approved by U.S. EPA on Dec. 21, 2010 is used and Toledo Refining Co. operates the Plant 4 flare system as a fuel gas combustion device subject to 40 CFR Part 60, Subparts A and J .

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendix F]

(7) ALTERNATIVE MONITORING PROTOCOL (AMP) for FLARES – approved by U.S. EPA on December 21, 2010
The permittee has elected to implement the Alternative Monitoring Protocol submitted to U.S. EPA October 25, 2010. Through this submission, the permittee will operate this emissions unit as a fuel gas combustion device subject to the provisions of 40 CFR Part 60, Subparts A and J. The permittee elects to demonstrate compliance with 40 CFR Part 60 Subparts A and J by monitoring the continuous and intermittent, routinely-generated refinery fuel gas streams put into the flare header using a combination of

techniques (depending on the stream) which include CEMS, parametric monitoring and/or alternative monitoring system.

[Authority for term: 2006 Consent Decree, Appendix H]

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit semiannual written reports that summarize the information in items a. through e. in d)(1) for each relief. These reports shall be submitted by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly deviation (excursion) reports identifying all periods of time during which there was no pilot flame. These reports shall be submitted by January 31, April 31, and July 31, and October 31 of each year and shall cover the previous calendar quarter.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) [CD, section K.53. and PTI P0107345] Acid Gas Flaring Incident Investigation and Reporting
No later than 45 days following the end of an Acid Gas Flaring Incident, the permittee shall submit to EPA, the Ohio EPA, and the Toledo Division of Environmental Services a report that sets forth the following:

a. The date and time that the Acid Gas Flaring Incident started and ended.

To the extent that the Acid Gas Flaring Incident involved multiple releases either within a 24-hour period or within subsequent, contiguous, non-overlapping 24-hour periods, the permittee shall set forth the starting and ending dates and times of each release;

b. An estimate of the quantity of sulfur dioxide that was emitted and the calculations that were used to determine that quantity;

c. The steps, if any, that the permittee took to limit the duration and/or quantity of sulfur dioxide emissions associated with the Acid Gas Flaring Incident;

d. A detailed analysis that sets forth the Root Cause and all significant contributing causes of that Acid Gas Flaring Incident, to the extent determinable;

e. An analysis of the measures, if any, that are available to reduce the likelihood of a recurrence of an Acid Gas Flaring Incident resulting from the same Root Cause or significant contributing causes in the future. If two or more reasonable

alternatives exist to address the Root Cause, the analysis shall discuss the alternatives that are available, the probable effectiveness and cost of the alternatives, and whether or not an outside consultant should be retained to assist in the analysis. Possible design, operation and maintenance changes shall be evaluated. If the permittee concludes that corrective action(s) is (are) required under this paragraph, the report shall include a description of the action(s) and, if not already completed, a schedule for its (their) implementation, including proposed commencement and completion dates. If the permittee concludes that corrective action is not required under this paragraph, the report shall explain the basis for that conclusion;

f. To the extent that investigations of the causes and/or possible corrective actions still are underway on the due date of the report, a statement of the anticipated date by which a follow-up report fully conforming to the requirements of d. and e. of this paragraph shall be submitted. Nothing in this Paragraph shall be deemed to excuse the permittee from its investigation, reporting, and corrective action obligations under this Section for any Acid Gas Flaring Incident which occurs after an Acid Gas Flaring Incident for which the permittee has requested an extension of time under this Paragraph; and

g. To the extent that completion of the implementation of corrective action(s), if any, is not finalized at the time of the submission of the report required under this paragraph, then, by no later than 30 days after completion of the implementation of corrective action(s), the permittee shall submit a report identifying the corrective action(s) taken and the dates of commencement and completion of implementation.

(5) The Ohio EPA, Central Office shall approve the proposed sampling site and certify that the continuous hydrogen sulfide monitoring system meets the requirements of Performance Specification 7. Once received, the letter/document of certification shall be maintained on-site and shall be made available to the director (the appropriate Ohio EPA District Office or local air agency) upon request.

Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendix B]

(6) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous hydrogen sulfide monitoring system after installation of the monitoring system required in d):

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter, documenting all instances of hydrogen sulfide emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, and any other applicable rules or regulations. The report

shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as, the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s). If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect.

b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

i. the facility name and address;

ii. the manufacturer and model number of the continuous hydrogen sulfide and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;;

iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;

v. the total operating time (hours) of the emissions unit;

vi. the total operating time of the continuous hydrogen sulfide monitoring system while the emissions unit was in operation;

vii. results and dates of the quarterly cylinder gas audits;

viii. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

ix. unless previously submitted, the results of any relative accuracy test audit showing the continuous hydrogen sulfide monitor out-of-control and the compliant results following any corrective actions;

x. the date, time, and duration of any/each malfunction** of the continuous hydrogen sulfide monitoring system, emissions unit, and/or control equipment;

xi. the date, time, and duration of any downtime** of the continuous hydrogen sulfide monitoring system and/or control equipment while the emissions unit was in operation; and

xii. the reason (if known) and the corrective actions taken (if any) for each event in b.x. and xi.

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

** each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit.

NOTE: If following the Alternative Monitoring Protocol approved by U.S. EPA on Dec. 21, 2010, the above report is not necessary unless a hydrogen sulfide CEM is used as a part of the AMP on the flare.

[Authority for term: 40 CFR 60.7]

f) Testing Requirements

(1) Compliance with the emission limitation in b)(1) of these terms and conditions shall be determined in accordance with the following method:

a. Emission Limitation:

no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emission observations performed in accordance with Method 22 of 40 CFR Part 60, Appendix A. The observation period shall be 2 hours.

b. Emission Limitation:

The permittee shall not burn in any fuel gas combustion device any fuel gas that contains a hydrogen sulfide (H_2S) in excess of 230 mg/dscm (0.10 gr/dscf).

Applicable Compliance Method:

Ongoing compliance with the hydrogen sulfide emission limitation(s) contained in this permit, 40 CFR Part 60, and any other applicable standard(s) shall be demonstrated through the data collected as required in the U.S. EPA approved Alternative Monitoring Plan.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The net heating value of the gas being combusted at the flare shall be calculated as follows:

$$H_T = k \sum_{i=1}^{n} C_i H_i$$

where:

H_T = net heating value of the sample, MJ/scm; where the net enthalpy per mole of off gas is based on combustion at 25 degrees Celsius and 760 mm Hg, but the standard temperature of 20 degrees Celsius is used for determining the volume corresponding to one mole;

k = constant, 1.740 x 10^{-7} (1/ppm) (g mole/scm) (MJ/kcal), where the standard temperature for (g mole/scm) is 20 degrees Celsius;

C_i = concentration of sample component (i) in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-90;

H_i = net heat of combustion of sample component (i), kcal/g mole at 25 degrees Celsius and 760 mm Hg. The heats of combustion may be determined using ASTM D4809-95 if published values are not available or cannot be calculated;

i = subscript denoting a specific component in the sample; and

n = total number of components within the sample.

The conversion factor of (2) 26.84 Btu scm/MJ scf) can be used to convert the net heating value of the gas (H_T) from MJ/scm to Btu/scf.

[Authority for term: 40 CFR 63.11]

(3) The actual exit velocity of the flare shall be determined by dividing the volumetric flow rate (in units of standard temperature and pressure) of the flare header or headers that feed the flare, as determined by Reference Methods 2, 2A, 2C, or 2D (found in 40 CFR 60, Appendix A), as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.

The conversion factor of (3) 3.281 ft/m) can be used to convert the velocity from m/sec to ft/sec.

[Authority for term: 40 CFR 63.11]

g) Miscellaneous Requirements

(1) None.

12. P009, PL4 Flare

Operations, Property and/or Equipment Description:

P009 - Plant 4 Flare, steam assisted; used as a control device for hydrocarbon emissions to the atmosphere from process vents, malfunctions, and emergency relief.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI 04-01447 issued 9/29/06 and modified on 1/23/07, 2/23/09 1/14/10, 5/28/10, 1/27/2011 and 1/6/2012 - P0108943)	See b)(2)b. and b)(2)e.
b.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	The flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. See c)(2)
c.	40 CFR Part 63, Subpart CC (40 CFR 63.640-656) [In accordance with 40 CFR 63.640(c)(1) and 63.644(a)(2), this emissions unit acts as a control device for equipment subject to Subpart CC]	The permittee shall reduce the emissions of organic HAP's using a flare meeting the requirements of 40 CFR 63.11(b).
d.	40 CFR Part 60, Subpart A	The flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	(40 CFR 60.1-19)	5 minutes during any 2 consecutive hours. See c)(2)
e.	40 CFR Part 60, Subpart J (40 CFR 60.100-109) [Pursuant to the Consent Decree entered March 14, 2006, the permittee shall comply with the NSPS Subpart J requirements for hydrocarbon flaring devices.]	See b)(2)c.
f.	40 CFR Part 60, Subpart GGG (40 CFR 60.650-653) [In accordance with 40 CFR 60.650, this emissions unit has a compressor and/or equipment as defined in 60.651 that is an affected facility in a petroleum refinery]	See b)(2)a.

(2) Additional Terms and Conditions

a. Pursuant to 40 CFR Part 63.640(p), the flare will be required to comply only with the provisions of 40 CFR Part 63, Subpart CC with respect to the Control Device Requirements under 40 CFR Part 60, Subpart A, section 60.11, because this flare is a control device for an emissions unit that is subject to 40 CFR Part 60, Subparts A and GGG.

b. Compliance with the emission limitation under NSPS Subpart J, 40 CFR. 60.104(a)(1).

i. Continuous or Intermittent, Routinely-Generated Refinery Fuel Gases
For continuous or intermittent, routinely-generated refinery gases that are combusted in any of the NSPS Hydrocarbon Flaring Devices, the permittee shall comply with the emission limit at 40 CFR 60.104(a)(1) by December 31, 2009.

ii. Non-Routinely Generated Gases
The combustion of gases generated by the startup, shutdown, or malfunction of a refinery process unit or released to an NSPS Flaring

Device as a result of relief valve leakage or other emergency malfunction are exempt from the requirement to comply with 40 CFR 60.104(a)(1).

c. [60.104(a)(1)]
The permittee shall not burn in any fuel gas combustion device any fuel gas that contains a hydrogen sulfide (H_2S) in excess of 230 mg/dscm (0.10 gr/dscf). The combustion in a flare of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from this paragraph.

d. The hourly and annual emission limitations for CO, NOx, PM, PM_{10}, and VOC were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.

e. The permittee shall comply with the NSPS Subpart J requirements for hydrocarbon flaring devices.

c) Operational Restrictions

(1) [Consent Decree (CD), section J.48 and PTI 0106143] NSPS APPLICABILITY OF HYDROCARBON DEVICES
The permittee shall meet the NSPS Subparts A and J requirements by using one or any combination of the following methods:

a. Operating and maintaining a flare gas recovery system to prevent continuous or routine combustion in this emissions unit. Use of a flare gas recovery system on a flare obviates the need to continuously monitor emissions as otherwise required by 40 CFR 60.105(a)(4);

b. Eliminating the routes of continuous or intermittent, routinely-generated refinery fuel gases to this emissions unit and operating the flaring device such that it only receives non-routinely generated gases, process upset gases, fuel gas released as a result of relief valve leakage or gases released due to other emergency malfunctions; or

c. Operating this emissions unit as a fuel gas combustion device, monitoring it for the continuous or intermittent, routinely-generated refinery fuel gas streams put into the flare header, with:

i. a CEMS as required by 40 CFR 60.105(a)(4); or

ii. a parametric monitoring system approved by U.S. EPA under 40 CFR 60.13(i); or

iii. an alternative monitoring system approved by U.S. EPA under 40 CFR 60.13(i).

The permittee shall identify the options that were implemented for each NSPS Hydrocarbon Flaring Device in the first report due after compliance with this section is achieved.

NOTE: On August 7, 2009, Sunoco sent an Alternative Monitoring Protocol (AMP) to U.S. EPA that was approved on May 5, 2010 for the Plant 4 Flare System. The submitted protocol met the requirements of Appendix H of the Consent Decree entered March 14, 2006. Sunoco will demonstrate compliance as set forth in the AMP and any future updates.

(2) [60.18 and 63.11] FLARE REQUIREMENTS - 40 CFR Parts 60 and 63, Subpart A

The permittee shall comply with the applicable restrictions in 40 CFR Parts 60 and 63, Subpart A, including, the following sections:

63.11(a)	*Control device requirements*: *Applicability.* 40 CFR 63.11 contains requirements for control devices used to comply with provisions in relevant standards referring directly or indirectly to this section.
63.11(b)(1)	Permittees using flares shall monitor these control devices to assure that they are operated and maintained in conformance with their designs.
63.11(b)(2) and 60.18(c)(6)	Flares shall be steam-assisted, air-assisted, or non-assisted.
63.11(b)(3) and 60.18(e)	Flares shall be operated at all times when emissions may be vented to them.
63.11(b)(5) and 60.18(c)(2)	Flares shall be operated with a flame present at all times. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.
63.11(b)	The permittee has the choice of adhering to the heat content specifications in 40 CFR Part 63.11(b)(6)(ii), and the maximum tip velocity specifications in 63.11(b)(7) or adhering to the requirements in 63.11(b)(6)(i) (non-assisted flare).
63.11(b)(6)(ii), 60.18(c)(3) and 60.18(f)(3)	Flares shall be used only with the net heating value of the gas being combusted at 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted. The net heating value of the gas being combusted in a flare shall be calculated using the equation found in 40 CFR Part 63.11(b)(6)(ii).
63.11(b)(7)(i), 60.18(c)(4)(i) and 60.18(f)(4)	Steam-assisted and non-assisted flares shall be designed for and operated with an exit velocity less than 18.3 m/sec (60 ft/sec), except as provided in 40 CFR Part 63.11(b)(7)(ii) and (b)(7)(iii).

	The actual exit velocity of a flare shall be determined by dividing by the volumetric flow rate of gas being combusted (in units of emission standard temperature and pressure), as determined by Test Methods 2, 2A, 2C, or 2D in Appendix A to 40 CFR Part 60, of this chapter, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.
63.11(b)(7)(ii) and 60.18(c)(4)(ii)	Steam-assisted flares with an exit velocity, equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec), are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).
63.11(b)(7)(iii) and 60.18(e)(5	Steam-assisted flares operated with an exit velocity, less than the velocity V_{max}, as determined by the method specified in this paragraph, but less than 122 m/sec (400 ft/sec) are allowed. The maximum permitted velocity, V_{max}, for flares complying with this paragraph shall be determined by the equation stated in 63.11(b)(7)(iii).

(3) [Consent Decree (CD), section L.64 and PTI 0106143] CONTROL OF HYDROCARBON FLARING INCIDENTS

The permittee shall at all times and to the extent practicable, including during periods of Startup, Shutdown, upset and/or Malfunction of refinery process units, implement good air pollution control practices to minimize emissions from its Hydrocarbon Flaring Devices consistent with 40 CFR. 60.11(d). The permittee shall implement such good air pollution control practices to minimize Hydrocarbon Flaring Incidents by investigating, reporting and correcting all Hydrocarbon Flaring Incidents in accordance with the procedures in Paragraph 64 of the Consent Decree entered March 14, 2006.

As defined by the Consent Decree, “Hydrocarbon Flaring Incident” or “HC Flaring Incident” shall mean the continuous or intermittent Hydrocarbon Flaring, except for Acid Gas or Sour Water Stripper Gas or Tail Gas, at a Hydrocarbon Flaring Device that results in the emission of sulfur dioxide equal to, or greater than five-hundred 500 pounds in any 24-hour period; provided, however, that if 500 pounds or more of sulfur dioxide have been emitted in any 24-hour period and flaring continues into subsequent, contiguous, non-overlapping 24-hour period(s), each period of which results in emissions equal to, or in excess of 500 pounds of sulfur dioxide, then only one HC Flaring Incident shall have occurred. Subsequent, contiguous, non-overlapping periods are measured from the initial commencement of Flaring within the HC Flaring Incident.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain records which provide the following information for each known relief which results in non-smokeless operation of the flare:

a. the date, time, and duration of the relief;

b. the flare involved;

c. the process unit(s) associated with the relief;

d. the cause of the relief; and

e. the corrective actions taken.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall record the following information each day:

a. all periods during which there was no pilot flame; and

b. the operating times for the flare, monitoring equipment, and the associated emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) Periodic maintenance may be required for properly designed and operated flare gas recovery systems. The permittee shall take all reasonable measures to minimize emissions while such periodic maintenance on a flare gas recovery system is being performed.

[Authority for term: PTI P0106143]

(4) [CD, section J.49. and PTI 0106143] HYDROCARBON FLARING DEVICES
The permittee shall at all times and to the extent practicable, including during periods of Startup, Shutdown, upset and/or Malfunction of refinery process units, implement good air pollution control practices to minimize emissions from its Hydrocarbon Flaring Devices consistent with 40 CFR. 60.11(d). The permittee shall implement such good air pollution control practices to minimize Hydrocarbon Flaring Incidents by investigating, reporting and correcting all Hydrocarbon Flaring Incidents.

(5) H_2S CEM
The permittee shall install, calibrate, maintain, and operate continuous monitoring systems as follows:

a. an instrument for continuously monitoring and recording the concentration (dry basis) of H_2S in fuel gases before being burned in any fuel gas combustion device.

i. The span value for this instrument is 425 mg/dscm H_2S.

ii. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H_2S in the fuel gas being burned.

iii. The performance evaluations for this H_2S monitor under 40 CFR 60.13(c) shall use Performance Specification 7. Method 11, 15, 15A, or 16 shall be used for conducting the relative accuracy evaluations.

b. The permittee shall maintain records of data obtained by the continuous hydrogen sulfide monitoring system including, but not limited to:

i. emissions of hydrogen sulfide in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;;

ii. emissions of hydrogen sulfide, in all units of the applicable standard(s) and in the appropriate averaging period;

iii. results of quarterly cylinder gas audits;

iv. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

v. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

vi. hours of operation of the emissions unit, continuous hydrogen sulfide monitoring system, and control equipment;

vii. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous hydrogen sulfide monitoring system;

viii. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous hydrogen sulfide monitoring system; as well as,

ix. the reason (if known) and the corrective actions taken (if any) for each such event in (vii) and (viii).

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

NOTE: Valid minute by minute CEMS data shall not be required during periods in which scheduled CEMS system maintenance events (such as system blow-backs) occur. Minute by minute data recorded during a scheduled maintenance event shall be flagged as invalid due to the scheduled maintenance event, and not used in future compliance determination calculations.

In lieu of installing a hydrogen sulfide continuous monitoring system specified under 40 CFR 60.105(a)(4), the permittee may request pursuant to 40 CFR 60.13(i) permission from U.S. EPA to use an alternative monitoring plan. The permittee made such a request and the proposed alternative monitoring plan was approved by U.S. EPA on May, 5, 2010.

NOTE: On August 7, 2009, Toledo Refining Co. (formerly Sunoco) sent an alternative monitoring protocol (AMP) to U.S. EPA that was approved on May 5, 2010 for the Plant 4 Flare System. The submitted protocol met the requirements of Appendix H of the Consent Decree entered March 14, 2006. Toledo Refining Co. will demonstrate compliance as set forth in the AMP and any future updates.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendices B & F]

(6) [CD, section K and PTI 0106143] ACID GAS FLARING INCIDENTS
As defined by the Consent Decree, “Acid Gas Flaring Incident” or “AG Flaring Incident” shall mean the continuous or intermittent combustion of Acid Gas and/or Sour Water Stripper Gas that results in the emission of sulfur dioxide equal to, or in excess of, 500 pounds in any 24-hour period; provided, however, that if 500 pounds or more of sulfur dioxide have been emitted in a 24-hour period and flaring continues into subsequent, contiguous, non-overlapping 24-hour period(s), each period of which results in emissions equal to, or in excess of 500 pounds of sulfur dioxide, then only one AG Flaring Incident shall have occurred. Subsequent, contiguous, non-overlapping periods are measured from the initial commencement of flaring within the AG Flaring Incident.

a. [CD, section K.52]
The permittee shall investigate the cause of Acid Gas Flaring, take reasonable steps to correct the conditions that have caused or contributed to such Acid Gas Flaring, and minimize Acid Gas Flaring. The permittee shall follow the procedures in this section "Acid Gas Flaring Incidents" to evaluate whether Acid Gas/Sour Water Stripper Gas Flaring Incidents are due to Malfunctions.

b. [CD, section K.54. a. through d.] Corrective Action.

i. In response to any AG Flaring Incident, the permittee shall take, as expeditiously as practicable, such interim and/or long-term corrective actions, if any, as are consistent with good engineering practice to minimize the likelihood of a recurrence of the Root Cause and all significant contributing causes of that AG Flaring Incident.

As defined by the Consent Decree, “Root Cause” shall mean the primary cause(s) of an AG Flaring Incident(s), or Hydrocarbon Flaring Incident as determined through a process of investigation.

ii. If EPA does not notify the permittee in writing within 45 days of receipt of the report(s) required in e)(4) that it objects to one or more aspects of the proposed corrective action(s) and schedule(s) of implementation, if any, then that (those) action(s) and schedule(s) shall be deemed acceptable for purposes of compliance with this paragraph. EPA does not, however, by its failure to object to any corrective action that the permittee may take

in the future, warrant or aver in any manner that any corrective actions in the future shall result in compliance with the provisions of the Clean Air Act or its implementing regulations.

iii. If EPA objects, in whole or in part, to the proposed corrective action(s) and/or the schedule(s) of implementation or, where applicable, to the absence of such proposal(s) and/or schedule(s), it shall notify the permittee and explain the basis for its objection (s) in writing within 45 days following receipt of the report(s) required in e)(4). The permittee shall respond within 45 days to EPA's objection(s).

iv. Nothing in d)(6) or e)(4) shall be construed to limit the right of the permittee to take such corrective actions as it deems necessary and appropriate immediately following an Acid Gas Flaring Incident or in the period during preparation and review of any reports required under this Paragraph.

c. [CD, section K.62.a. through c.] Emission Calculations.

i. Calculation of the Quantity of Sulfur Dioxide Emissions Resulting from AG Flaring.

The quantity of SO_2 emissions resulting from AG Flaring Incident shall be calculated by the following formula:

Tons of SO_2 = [FR][TD][ConcH_2S][8.44x10-5].

Where:

FR = Average Flow Rate to Flaring Device(s) during Flaring Incident in standard cubic feet per hour

TD = Total Duration of Flaring Incident in hours

ConcH_2S = Average Concentration of Hydrogen Sulfide in gas during Flaring Incident (or immediately prior to Flaring Incident if all gas is being flared) expressed as a volume fraction (scf H_2S/scf gas)

8.44 x 10-5 = [lb mole H2S/379 scf H_2S][64 lbs SO_2/lb mole H_2S][Ton/2000 lbs]

The quantity of SO_2 emitted shall be rounded to one decimal point. (Thus, for example, for a calculation that results in a number equal to 10.050 tons, the quantity of SO_2 emitted shall be rounded to 10.1 tons, and less than 10.050 shall be rounded to 10.0.) For purposes of determining the occurrence of, or the total quantity of SO_2 emissions resulting from, an AG Flaring Incident that is comprised of intermittent AG Flaring, the quantity of SO_2 emitted shall be equal to the sum of the quantities of SO_2 flared during each 24-hour period starting when the Acid Gas was first flared.

ii. Calculation of the Rate of SO_2 Emissions During AG Flaring

The rate of SO_2 emissions resulting from AG Flaring Incident shall be expressed in terms of pounds per hour and shall be calculated by the following formula:

ER = [FR][ConcH_2S][0.169]

Where:

ER = Emission Rate in pounds of SO_2 per hour

0.169 = [lb mole H2S/379 scf H_2S][1.0 lb mole SO_2/1 lb mole H_2S][64 lb SO_2/1.0 lb mole SO_2]

The emission rate shall be rounded to one decimal point. (Thus, for example, for a calculation that results in an emission rate of 19.95 pounds of SO_2 per hour, the emission rate shall be rounded to 20.0 pounds of SO_2 per hour; for a calculation that results in an emission rate of 20.05 pounds of SO_2 per hour, the emission rate shall be rounded to 20.1.)

The flow of gas to the AG Flaring Device(s) ("FR") shall be as measured by the relevant flow meter or reliable flow estimation parameters. Hydrogen sulfide concentration ("ConcH_2S") shall be determined from the Sulfur Recovery Plant feed gas analyzer, from knowledge of the sulfur content of the process gas being flared, by direct measurement by tutwiler or draeger tube analysis or by any other method approved by EPA or the Ohio EPA. In the event that any of these data points is unavailable or inaccurate, the missing data point(s) shall be estimated according to best engineering judgment. The report required under e)(3) shall include the data used in the calculation and an explanation of the basis for any estimates of missing data points.

(7) The permittee shall develop and maintain a written quality assurance/quality control plan for the continuous hydrogen sulfide monitoring system, designed to ensure continuous valid and representative readings of hydrogen sulfide emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

NOTE: Per the Consent Decree entered March 14, 2006, (section J.48.a.iii.(C) and Appendix H of the CD), the above does not apply if the alternative monitoring protocol for H_2S approved by U.S. EPA on May 5, 2010 is used and Toledo Refining Co. operates the Plant 4 flare system as a fuel gas combustion device subject to 40 CFR Part 60, Subparts A and J .

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendix F]

(8) ALTERNATIVE MONITORING PROTOCOL (AMP) for FLARES – approved by U.S. EPA on May 5, 2010
The permittee has elected to implement the Alternative Monitoring Protocol submitted to U.S. EPA on August 10, 2009. Through this submission, the permittee will operate this emissions unit as a fuel gas combustion device subject to the provisions of 40 CFR Part 60, Subparts A and J. The permittee elects to demonstrate compliance with 40 CFR Part 60 Subparts A and J by monitoring the continuous and intermittent, routinely-generated refinery fuel gas streams put into the flare header using a combination of techniques (depending on the stream) which include CEMS, parametric monitoring and/or alternative monitoring system.

[Authority for term: 2006 Consent Decree, Appendix H]

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit semiannual written reports that summarize the information in d)(1)a. though e. for each relief. These reports shall be submitted by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly deviation (excursion) reports identifying all periods of time during which there was no pilot flame. These reports shall be submitted by January 31, April 31, and July 31, and October 31 of each year and shall cover the previous calendar quarter.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) [CD, section K.53. and PTI 0106143] Acid Gas Flaring Incident Investigation and Reporting
No later than 45 days following the end of an Acid Gas Flaring Incident, the permittee shall submit to EPA, the Ohio EPA, and Toledo Environmental Services a report that sets forth the following:

a. The date and time that the Acid Gas Flaring Incident started and ended. To the extent that the Acid Gas Flaring Incident involved multiple releases either within a 24-hour period or within subsequent, contiguous, non-overlapping 24-hour periods, the permittee shall set forth the starting and ending dates and times of each release;

b. An estimate of the quantity of sulfur dioxide that was emitted and the calculations that were used to determine that quantity;

c. The steps, if any, that the permittee took to limit the duration and/or quantity of sulfur dioxide emissions associated with the Acid Gas Flaring Incident;

d. A detailed analysis that sets forth the Root Cause and all significant contributing causes of that Acid Gas Flaring Incident, to the extent determinable;

e. An analysis of the measures, if any, that are available to reduce the likelihood of a recurrence of an Acid Gas Flaring Incident resulting from the same Root Cause or significant contributing causes in the future. If two or more reasonable alternatives exist to address the Root Cause, the analysis shall discuss the alternatives that are available, the probable effectiveness and cost of the alternatives, and whether or not an outside consultant should be retained to assist in the analysis. Possible design, operation and maintenance changes shall be evaluated. If the permittee concludes that corrective action(s) is (are) required under this paragraph, the report shall include a description of the action(s) and, if not already completed, a schedule for its (their) implementation, including proposed commencement and completion dates. If the permittee concludes that corrective action is not required under this paragraph, the report shall explain the basis for that conclusion;

f. To the extent that investigations of the causes and/or possible corrective actions still are underway on the due date of the report, a statement of the anticipated date by which a follow-up report fully conforming to the requirements of d. and e. of this paragraph shall be submitted. Nothing in this Paragraph shall be deemed to excuse the permittee from its investigation, reporting, and corrective action obligations under this Section for any Acid Gas Flaring Incident which occurs after an Acid Gas Flaring Incident for which the permittee has requested an extension of time under this Paragraph; and

g. To the extent that completion of the implementation of corrective action(s), if any, is not finalized at the time of the submission of the report required under this paragraph, then, by no later than 30 days after completion of the implementation of corrective action(s), the permittee shall submit a report identifying the corrective action(s) taken and the dates of commencement and completion of implementation.

(5) The Ohio EPA, Central Office shall approve the proposed sampling site and certify that the continuous hydrogen sulfide monitoring system meets the requirements of Performance Specification 7. Once received, the letter/document of certification shall be maintained on-site and shall be made available to the director (the appropriate Ohio EPA District Office or local air agency) upon request.

Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendix B]

(6) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous hydrogen sulfide monitoring system after installation of the monitoring system required in d):

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA District Office or Local Air Agency, documenting all instances of hydrogen sulfide emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as, the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).

b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

i. the facility name and address;

ii. the manufacturer and model number of the continuous hydrogen sulfide and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;

v. the total operating time (hours) of the this emissions unit;

vi. the total operating time of the continuous hydrogen sulfide monitoring system while the emissions unit was in operation;

vii. results and dates of quarterly cylinder gas audits;

viii. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

ix. unless previously submitted, the results of any relative accuracy test audit showing the continuous hydrogen sulfide monitor out-of-control and the compliant results following any corrective actions;

x. the date, time, and duration of any/each malfunction** of the continuous hydrogen sulfide monitoring system, emissions unit, and/or control equipment;

xi. the date, time, and duration of any downtime** of the continuous hydrogen sulfide monitoring system and/or control equipment while the emissions unit was in operation; and

xii. the reason (if known) and the corrective actions taken (if any) for each event in b.x. and xi.

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report.

** each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit.

NOTE: The above report is not necessary if the permittee chooses to comply with the Alternative Monitoring Protocol (AMP) approved by U.S. EPA on May 5, 2010, unless a hydrogen sulfide CEM is used as part of the AMP on the flare.

[Authority for term: 40 CFR 60.7]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

No visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible emission observations performed in accordance with Method 22 of 40 CFR Part 60, Appendix A. The observation period shall be 2 hours.

b. Emission Limitation:

The permittee shall not burn in any fuel gas combustion device any fuel gas that contains a hydrogen sulfide (H_2S) in excess of 230 mg/dscm (0.10 gr/dscf).

Applicable Compliance Method:

The monitoring and recordkeeping requirements in d) shall be used to demonstrate compliance. If required, the permittee shall demonstrate compliance using the methods and procedures of 40 CFR 60.106(a) and (e)(1). Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The net heating value of the gas being combusted at the flare shall be calculated as follows:

$$H_T = k \sum_{i=1}^{n} C_i H_i$$

where:

H_T = net heating value of the sample, MJ/scm; where the net enthalpy per mole of off gas is based on combustion at 25 degrees Celsius and 760 mm Hg, but the standard temperature of 20 degrees Celsius is used for determining the volume corresponding to one mole;

k = constant, 1.740 x 10^{-7} (1/ppm) (g mole/scm) (MJ/kcal), where the standard temperature for (g mole/scm) is 20 degrees Celsius;

C_i = concentration of sample component (i) in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-90;

H_i = net heat of combustion of sample component (i), kcal/g mole at 25 degrees Celsius and 760 mm Hg. The heats of combustion may be determined using ASTM D4809-95 if published values are not available or cannot be calculated;

i = subscript denoting a specific component in the sample; and

n = total number of components within the sample.

The conversion factor of (2)26.84 Btu scm/MJ scf) can be used to convert the net heating value of the gas (H_T) from MJ/scm to Btu/scf.

[Authority for term: 40 CFR 63.11]

(3) The actual exit velocity of the flare shall be determined by dividing the volumetric flow rate (in units of standard temperature and pressure) of the flare header or headers that

feed the flare, as determined by Reference Methods 2, 2A, 2C, or 2D (found in 40 CFR 60, Appendix A), as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.

The conversion factor of 3.281 ft/m can be used to convert the velocity from m/sec to ft/sec.

[Authority for term: 40 CFR 63.11]

(4) If the permittee chooses to install the H_2S CEM in c)(1)c., then within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, the permittee shall conduct certification tests of the continuous hydrogen sulfide monitoring system in units of the applicable standard(s), to demonstrate compliance with 40 CFR Part 60, Appendix B, Performance Specification 7 and ORC section 3704.03(I).

Personnel from the Ohio EPA Central Office and the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to Ohio EPA, one copy to the appropriate Ohio EPA District Office or local air agency and one copy to Ohio EPA Central Office, and pursuant to OAC rule 3745-15-04, within 30 days after the test is completed.

Certification of the continuous hydrogen sulfide monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets the requirements of 40 CFR Part 60, Appendix B, Performance Specification 7 and ORC section 3704.03(I).

Ongoing compliance with the hydrogen sulfide emission limitation(s) contained in this permit, 40 CFR Part 60, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the requirements of 40 CFR Part 60.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendices B and F]

g) Miscellaneous Requirements

(1) None.

13. P011, FCC Unit

Operations, Property and/or Equipment Description:

P011 - FCC Unit, fluidized catalytic cracking (FCC) unit with a processing capacity of 100,000 barrels per day; emissions controls consist of two CO boilers (B046 and B047), SCR system for NOx control, and a wet gas scrubber for SO_2 and particulate control.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) c)(4), d)(12), d)(14), d)(15), d)(16) and f)(1)u.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-01447 issued 9/29/06 and modified on 1/23/07, 2/23/09 1/14/10, 5/28/10, 1/27/2011 and 1/6/2012 - P0108943)	The combined filterable particulate matter (PM) emissions from the FCCU (Emissions unit P011) and the CO Boilers (B046 and B047) shall not exceed 0.45 pound per thousand pounds of coke-burnoff; The combined sulfur dioxide (SO_2) emissions from P011, B046, and B047 shall not exceed 316 pounds per hour; The combined volatile organic compound (VOC) emissions from the FCCU (Emissions Unit P011) and the CO Boilers (Emissions Units B046 and B047) shall not exceed 3.67 pounds per hour; The combined sulfuric acid (H_2SO_4) mist emissions from the FCCU (P011) and CO Boilers (B046 and B047) shall not exceed 60.07 pounds per hour and 263.11 tons per year, based upon a rolling, 365-day summation of the daily emissions; and See b)(2)a. and c)(4).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-31-05(D) (PTI 04-01447 issued 9/29/06 and modified on 1/23/07, 2/23/09 1/14/10, 5/28/10, 1/27/2011 and 1/6/2012 - P0108943)	The combined nitrogen oxides (NOx) emissions from P011, B046 and B047 shall not exceed 198.51 tons per year, based upon a rolling, 365-day summation of the daily emissions; The combined filterable PM emissions from P011, B046 and B047 shall not exceed 165.96 tons per year; The combined SO_2 emissions from P011, B046 and B047 shall not exceed 345.71 tons per year, based upon a rolling, 365-day summation of the daily emissions; The combined VOC emissions from the FCCU (Emissions Unit P011) and the CO Boilers (Emissions Units B046 and B047) shall not exceed 16.07 tons per year, based upon a rolling, 365-day summation of the daily emissions; See b)(2)b., b)(2)c., b)(2)d., b)(2)l. through (2)n. and b)(2)p.
c.	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20% opacity, unless otherwise specified by the rule. See b)(2)q.
d.	OAC rule 3745-17-11(B)(1)	See b)(2)e.
e.	OAC rule 3745-18-54(O)(3)	The combined emissions from P011, B046 and B047 shall not exceed 3.00 pounds of sulfur dioxide (SO_2) per thousand pounds of fresh feed.
f.	40 CFR Part 60, Subpart A (40 CFR 60.1-19)	See b)(2)n.
g.	40 CFR Part 60, Subpart J (40 CFR 60.100-109) [Pursuant to PTI 04-01447 issued 9/26/06 and the Consent Decree	See b)(2)p.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	entered March 14, 2006, the permittee shall comply with the NSPS Subpart J requirements for opacity and sulfur dioxide emission limitations by 12/31/2009; with the particulate emission limitation by 3/14/2006 and carbon monoxide emission limitation by 3/14/2008.]	
h.	40 CFR Part 63, Subpart A (40 CFR 63.1-16) (40 CFR 63.1577)	See b)(2)h.
i.	40 CFR Part 63, Subpart UUU (40 CFR 63.1560-1579) [In accordance with 40 CFR 63.1561(a)(1)(iii), this emissions unit is at an existing refinery and is used to crack petroleum streams.]	See b)(2)f., b)(2)g., b)(2)i., and b)(2)j.
j.	OAC rule 3745-31-10 through 20 (PTI 04-01447 issued 9/29/06 and modified on 1/23/07, 2/23/09 1/14/10, 5/28/10, 1/27/2011 and 1/6/2012 - P0108943)	The combined CO emissions from P011, B046 and B047 shall be reduced by a minimum of 99% control efficiency and shall not exceed 500 parts per million by volume dry (ppmvd) at 0% oxygen as a 1-hour average, or 180 ppmvd at 0% oxygen as a rolling, 365-day average, or 1,087.28 tons per year, based upon a rolling, 365-day summation of the daily emissions; and The combined PM_{10} emissions from P011, B046 and B047 shall be controlled by a minimum of 95% and shall not exceed 0.90 pound per thousand pounds of coke-burnoff or 331.92 tons per year, based upon a rolling, 365-day summation of the daily emissions.

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1), 3745-17-11(A)(4), 3745-18-54(O)(3), 3745-21-08(E), 3745-31-05(D), and 3745-31-10 through 20, 40 CFR Part 60, Subparts A and J, and 40 CFR Part 63, Subpart UUU.

b. The permittee shall operate its FCCU so that the combined NOx emissions from P011, B046 and B047 do not exceed 20 ppmvd based on a 365-day rolling average or 40 ppmvd based on a 7-day rolling average, each at 0% oxygen.

c. The permittee's FCCU Regenerators shall be affected facilities subject to the requirements of NSPS Subparts A and J for each relevant pollutant by the dates specified below:

CO	3/14/2008
Opacity	12/31/2009
PM	3/14/2006
SO_2	12/31/2009

d. The combined SO_2 emissions from the P011, B046 and B047 shall not exceed 25 ppmvd based on a 365-day rolling average or 50 ppmvd based on a 7-day rolling average, each at 0% oxygen.

e. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

f. [63.1564(a)(1)] METAL HAP EMISSIONS, 40 CFR 63, Subpart UUU
The PM limitations specified by this rule are less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3). The opacity limitation specified by this rule is less stringent than the limitation specified by OAC rule 3745-17-07(A)(1).

g. [63.1565(a)(1)] ORGANIC HAP EMISSIONS, 40 CFR 63, Subpart UUU
The emission limitation specified by this rule is less stringent than the hourly CO emission limitation established pursuant to OAC rule 3745-31-10 through 20.

h. Table 44 of 40 CFR Part 63, Subpart UUU shows which parts of the General Provisions in 40 CFR Part 63.1 through 63.15 apply to this emissions unit.

i. [63.1569(a)(1)] HAP EMISSIONS FROM BYPASS LINES, 40 CFR 63, Subpart UUU
The permittee must meet each work practice standard in Table 36 of 40 CFR Part 63, Subpart UUU that applies to this emissions unit. The permittee can choose from the four following options:

i. [63.1569(a)(1)(i)]
The permittee can elect to install an automated system (Option 1);

ii. [63.1569(a)(1)(ii)]
The permittee can elect to use a manual lock system (Option 2);

iii. [63.1569(a)(1)(iii)]
The permittee can elect to seal the line (Option 3); or

iv. [63.1569(a)(1)(iv)]
The permittee can elect to vent to a control device (Option 4).

j. [63.1569(a)(2)] 40 CFR 63, Subpart UUU
As provided in 40 CFR Part 63.6(g), the EPA, may choose to grant the permittee permission to use an alternative to the work practice standard in 40 CFR Part 63.1569(a)(1).

k. The permittee shall develop and maintain a written quality assurance/quality control plan for the continuous CO monitoring system, designed to ensure continuous valid and representative readings of CO emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

l. The permittee shall develop and maintain a written quality assurance/quality control plan for the continuous NOx monitoring system, designed to ensure continuous valid and representative readings of NOx emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous NOx monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

m. The permittee shall develop and maintain a written quality assurance/quality control plan for the continuous SO_2 monitoring system, designed to ensure continuous valid and representative readings of SO_2 emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous SO_2 monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative

accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

n. 40 CFR Part 60, Subpart A provides applicability provisions, definitions, and other general provisions that are pertinent to emissions units affected by 40 CFR Part 60.

o. Pursuant to 40 CFR 60.13(i)(1), the permittee applied to U.S. EPA for use of an alternative monitoring plan instead of using a continuous opacity monitor as specified by 40 CFR 60.105(a)(1). U.S. EPA approved the alternative monitoring plan in a letter dated Dec. 21, 2010, the permittee does not have to comply with the continuous opacity monitoring, recordkeeping and reporting requirements of b), d), e) and f) beginning with the date of approval of the alternative monitoring plan listed above.

p. The opacity limitation specified by this rule is less stringent than the limitation specified by OAC rule 3745-17-07(A). The SO_2 emission limitation specified by this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(D). The PM limitation specified by this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3). The hourly ppm CO emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rules 3745-31-10 through 20.

q. The permittee shall comply with the U.S. EPA approved alternative monitoring plan for opacity to comply with this state regulation until the SIP change is approved. U.S. EPA approved the alternative monitoring plan in a letter dated Dec. 21, 2010 for 40 CFR 60, subpart J and for 40 CFR 63, subpart UUU.

c) Operational Restrictions

(1) [40 CFR 63, Subpart UUU]] NATIONAL EMISSION STANDARDS FOR HAPS FOR PETROLEUM REFINERIES: CATALYTIC CRACKING UNITS

The permittee shall comply with the applicable restrictions under 40 CFR Part 63, Subpart UUU, including the following sections:

63.1564(a)(2)	In lieu of the Table 2 operating limits, the permittee shall comply with the approved Alternative Monitoring Plan operating limits specified in c)(2). NOTE: Toledo Refining Co. is subject to the NSPS for PM in 40 CFR 60.102 and uses an alternative monitoring plan approved by U.S. EPA for opacity.
Table 44, 40 CFR 63.8(f)	Alternative Monitoring Plan (AMP) is allowed except that subpart UUU specifies procedures for requesting alternative monitoring systems and alternative parameters.

	NOTE: Toledo Refining Co. (formerly Sunoco) submitted an AMP to U.S. EPA which was approved in a letter dated Dec. 21, 2010.

(2) In order to maintain compliance with the applicable emission limitations contained in this permit:

a. the pressure of the water supplied at the discharge of the recirculation pumps supplying water to the Agglo-Filtering modules shall be maintained at a value of not less than the pressure as determined during a compliance test demonstrating compliance (103.7 psig, tested on 1/21/2010, or any lower pressure test result obtained during subsequent testing that demonstrates compliance) at all times while the FCCU is in operation and;

b. the flue gas static pressure drop across the Agglo-Filtering modules shall be continuously maintained at a value of not less than that determined during a compliance test demonstrating compliance (8.65 in water, tested on 1/21/2010, or any lower pressure drop test result obtained during subsequent testing that demonstrates compliance) at all times while the FCCU is in operation.

[Authority for term: OAC rule 3745-77-07(A)(1)]

(3) The permittee shall maintain an ammonia slip rate from the SCR unit of less than 5 ppmv.

[Authority for term: OAC rule 3745-77-07(A)(1) and PTI 04-01447]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall operate and maintain a continuous CO emissions monitoring system. Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR 60.2 and 40 CFR 60, Appendix B]

(2) The permittee shall operate and maintain equipment to continuously monitor and record CO emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Parts 60. The span value for this instrument shall be 1,000 ppm CO.

The permittee shall maintain records of data obtained by the continuous CO monitoring system including, but not limited to:

a. emissions of CO in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;

b. emissions of CO in all units of the applicable standard(s) in the appropriate averaging period (ppmvd at 0% O_2 1-hr average and ppmvd at 0% O_2 as a rolling, 365-day average);

c. results of quarterly cylinder gas audits;

d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

f. hours of operation of the emissions unit, continuous CO monitoring system, and control equipment;

g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous CO monitoring system;

h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous CO monitoring system; as well as,

i. the reason (if known) and the corrective actions taken (if any) for each such event in g. and h. above.

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

NOTE: Valid CEMS data shall not be required during periods in which scheduled CEMS system maintenance events (such as system blow-backs) occur. CEM cycle time data recorded during a scheduled maintenance event shall be flagged as invalid due to the scheduled maintenance event, and not used in future compliance determination calculations.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR 60.13 and 40 CFR Part 60, Appendices B & F]

(3) The permittee shall operate and maintain a continuous NOx emissions monitoring system. Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR 60.2 and 40 CFR 60, Appendix B]

(4) The permittee shall operate, and maintain equipment to continuously monitor and record NOx emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

The permittee shall maintain records of data obtained by the continuous NOx monitoring system including, but not limited to:

a. emissions of NOx in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;

b. emissions of NOx in all units of the applicable standard(s) in the appropriate averaging period (ppmvd at 0% O_2 as a 7-day, rolling average and ppmvd at 0% O_2 as a rolling, 365-day summation of the daily emissions);

c. results of quarterly cylinder gas audits;

d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

f. hours of operation of the emissions unit, continuous NOx monitoring system, and control equipment;

g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous NOx monitoring system;

h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous NOx monitoring system; as well as,

i. the reason (if known) and the corrective actions taken (if any) for each such event in g. and h. above.

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

NOTE: Valid CEMS data shall not be required during periods in which scheduled CEMS system maintenance events (such as system blow-backs) occur. CEM cycle time data recorded during a scheduled maintenance event shall be flagged as invalid due to the scheduled maintenance event, and not used in future compliance determination calculations.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR 60.13 and 40 CFR Part 60, Appendices B & F]

(5) ALTERNATIVE MONITORING PLAN FOR OPACITY
Pursuant to 40 CFR 60.13(i)(1), the permittee applied to U.S. EPA for use of the following alternative monitoring plan instead of using a continuous opacity monitor as specified by 40 CFR 60.105(a)(1) and 40 CFR 63, Subpart UUU, Table 2. U.S. EPA approved the alternative monitoring plan in a letter dated November 2, 2006 for 40 CFR Part 60, Subpart J and on December 21, 2010 for 40 CFR Part 63, subpart UUU.

Therefore, the permittee shall comply with the monitoring and recordkeeping requirements of these terms and conditions.

a. The permittee shall continuously monitor and record the pressure of the water supplied to at the discharge of the recirculation pumps supplying water to the EDV-6000 Agglo-Filtering modules. Pressure below the specified range will indicate a decrease in the filtering module efficiency.

b. The permittee shall continuously monitor and record the flue gas pressure drop across the Agglo-Filtering modules. A pressure differential below the specified range will indicate a decrease in the filtering module efficiency.

c. The monitors used for measuring the water pressure and air flow differential pressure shall meet the requirements at 40 CFR Part 63.1573(d)(3).

Each instance where either the water pressure or air flow differential pressure (or both) falls outside the enforceable ranges will be considered a violation of the opacity limit and the PE limit unless other data is provided which demonstrates either or both limits were not violated.

The above monitoring plan may be implemented in lieu of installing and operating a continuous opacity monitoring system as specified in 40 CFR 60.105(a)(1) for PE and 40 CFR 63, Subpart UUU, Table 2 for opacity.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR 60.13]

(6) The permittee shall calculate the daily emissions in pound(s) of SO_2 per 1000 pounds of the FCC fresh feed using the process operating data from the FCCU and the daily emissions in pounds of SO_2 calculated from the SO_2 CEM data.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) The permittee shall operate and maintain a continuous SO_2 emissions monitoring system. The span value of the monitor shall be set at 50 percent of the maximum estimated hourly potential sulfur dioxide emission concentration of the control device.

Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR 60.2 and 40 CFR 60, Appendix B]

(8) The permittee shall operate, and maintain equipment to continuously monitor and record SO_2 emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

The permittee shall maintain records of data obtained by the continuous SO_2 monitoring system including, but not limited to:

a. emissions of SO_2 in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;

b. emissions of SO_2 in all units of the applicable standard(s) in the appropriate averaging period (pounds per thousand barrels of fresh feed, ppmvd at 0% O_2 as a 7-day, rolling average and ppmvd at 0% O_2 as a rolling, 365-day summation of the daily emissions);

c. results of quarterly cylinder gas audits;

d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

f. hours of operation of the emissions unit, continuous SO_2 monitoring system, and control equipment;

g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous SO_2 monitoring system;

h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous SO_2 monitoring system; as well as,

i. the reason (if known) and the corrective actions taken (if any) for each such event in g. and h. above.

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

*NOTE: Valid CEMS data shall not be required during periods in which scheduled CEMS system maintenance events (such as system blow-backs) occur. CEM cycle time data recorded during a scheduled maintenance event shall be flagged as invalid due to the scheduled maintenance event, and not used in future compliance determination calculations.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR 60.13 and 40 CFR Part 60, Appendices B & F]

(9) When SO_2 emission data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using one of the following methods to provide emission data for a minimum of 18 hours a day in at least 22 out of 30 rolling consecutive calendar days.

a. The test methods as described in 40 CFR 60.106(k);

b. A spare continuous monitoring system; or

c. Other monitoring systems as approved by the Administrator of U.S. EPA.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR 60.105(a)(13)]

(10) The permittee shall record daily the average coke burn-off rate (Mg (tons) per hour) using the procedures of 40 CFR 60.106(b)(3) and the hours of operation. The Federal Register of September 21, 2006 changed to the equation contained in 40 CFR 60.106(b)(3) as listed below:

$$Rc = K_1Q_r\ (\%CO_2 + \%CO) + K_2Q_a - K_3Q_r(\%CO/2 + \%CO_2 + \%O_2)$$

[Authority for term: OAC rule 3745-77-07(C)(1 and 40 CFR 60.106(b)(3)]

(11) The permittee shall record daily the rate of combustion of liquid fossil-fuels and the hours of operation during which liquid fossil-fuels are combusted in the CO Boilers (Emissions Units B046 and B047) and exhaust gases from the catalyst regenerator are combusted in the CO Boilers.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(12) The permittee shall monitor the ammonia slip emissions from the SCR system by an emission calculation using the inlet ammonia injection concentration and the inlet NOx concentration upstream of the SCR and the outlet NOx out of the stack to calculate an ammonia slip concentration.

NH_3 (ppmv @ 0% O_2) = ((a-b*(c/1E6))*1E6/b)*d

Where:

a = NH_3 injection rate(lb/hr)/17(lb/lbmol),

b = dry exhaust gas flow rate (lb/hr)/(29(lb/lbmol), or

b = dry exhaust flow rate (scf/hr) / 379 (scf/lbmol at 60°F),

c = change in measured NOx concentration ppmv corrected to 0% O_2 across catalyst, and

d = correction factor.

The correction factor shall be derived through compliance testing by comparing the measured and calculated ammonia slip.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 04-01447]

(13) [40 CFR 63, Subpart UUU] NATIONAL EMISSION STANDARDS FOR HAPS FOR PETROLEUM REFINERIES: CATALYTIC CRACKING UNITS

The permittee shall comply with the applicable monitoring and record keeping requirements required under 40 CFR Part 63, Subpart UUU, including but not limited to, the following sections:

63.1564(a)(3) through (4)	Maintain an operation, maintenance and monitoring plan (OMMP).
63.1564(c)(1) and (2)	Determine and record the daily coke burn-off rate in the catalyst regenerator according to Table 6, monitor and record opacity, and maintain records to document compliance with the OMMP.
63.1565(a)(3) through (4); (c)(1) and (2)	Prepare and maintain an operation, maintenance and monitoring plan for the CO CEM to demonstrate continuous compliance by following the methods specified in Tables 13 & 14, for NSPS units.
63.1569(a) and (c)	Requirements for HAP emissions from bypass lines for work practice standards in Table 36 and compliance with the work practice standards by preparing an operation, maintenance and monitoring plan for bypass lines.
63.1570(a)	General requirements for complying with this Subpart such as compliance with opacity and non-opacity emission limits and standards. Must also maintain a startup, shutdown and malfunction plan (SSMP); operate in accordance with the SSMP and report instances when it was not followed.
63.1570(c)	Maintain a log detailing operation and maintenance.
63.1570(d) through (g)	Maintain a startup, shutdown and malfunction plan (SSMP); operate in accordance with it and report instances when it was not followed.
63.1572(a), (b), (c) and (d)	Monitoring installation, operation, and maintenance requirements such as maintain the CEMs and/or COMs according to Table 40 of this Subpart. Also, maintain any continuous parameter monitoring system according to Table 41 of this Subpart. NOTE: Toledo Refining Co. (formerly Sunoco) applied for an alternative monitoring plan (AMP) for opacity from U.S. EPA which was approved on Dec. 21, 2010, therefore, 63.1572(b) will not apply as long as Toledo Refining Co. follows the AMP.
63.1573(a) through (f)	Monitoring alternatives and how to apply for an AMP.
63.1574(f)	Prepare and implement an operation, maintenance and monitoring plan.

63.1576(a) through (i)	*Recordkeeping Requirements*: Maintain records as required in Tables 6, 7, 13, 14 and 39 for FCC units, subject to NSPS.

(14) The permittee must comply with the operation, maintenance and monitoring plan (OMMP) as required by 40 CFR Part 63, Subpart UUU, submitted on Feb. 17, 2010 or any future updates.

(15) AIR TOXICS POLICY

The permit to install for this emissions unit [P011] was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's “Review of New Sources of Air Toxic Emissions” policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the “worst case” pollutant(s):

Pollutant: ammonia
TLV (mg/m3): 17.41
Maximum Hourly Emission Rate (lbs/hr): 4.05
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.587
MAGLC (ug/m3): 414.5

[Authority for term: P0108943, formerly PTI-04-01447]

(16) Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the “Air Toxic Policy” is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the “Air Toxic Policy” will still be satisfied. If, upon evaluation, the permittee determines that the “Air Toxic Policy” will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the “Air Toxic Policy” include the following:

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists’ (ACGIH’s) handbook entitled “TLVs and BEIs” (“Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices”);

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

[Authority for term: P0108943, formerly PTI-04-01447]

(17) If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a “modification” under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the “Air Toxic Policy”:

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of the evaluation and determination that the changed emissions unit still satisfies the “Air Toxic Policy”; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the “Air Toxic Policy” for the change.

[Authority for term: P0108943, formerly PTI-04-01447]

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA’s eBusiness Center (Air Services online web portal).

(2) The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 365-day emission limitations for CO, NOx, PM_{10}, SO_2, and VOC and, for the first 12 calendar months of operation after the FCCU expansion, all exceedances of the maximum allowable cumulative emission levels. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous CO monitoring system:

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to TES, documenting all instances of CO emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapter 3745-21, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as, the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s). If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect.

b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

i. the facility name and address;

ii. the manufacturer and model number of the continuous CO and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the quarter, as specified above;

v. the total operating time (hours) of the emissions unit;

vi. the total operating time of the continuous CO monitoring system while the emissions unit was in operation;

vii. results and dates of quarterly cylinder gas audits;

viii. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

ix. unless previously submitted, the results of any relative accuracy test audit showing the continuous CO monitor out-of-control and the compliant results following any corrective actions;

x. the date, time, and duration of any/each malfunction** of the continuous CO monitoring system, emissions unit, and/or control equipment;

xi. the date, time, and duration of any downtime** of the continuous CO monitoring system and/or control equipment while the emissions unit was in operation; and

xii. the reason (if known) and the corrective actions taken (if any) for each event in b.x. and b.xi.

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

*where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report.

** each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR 60.7]

(4) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous NOx monitoring system:

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of NOx emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapters 3745-14 and 3745-23, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s). If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect.

b. These quarterly reports shall be submitted to TES by January 30, April 30, July 30, and October 30 of each year and shall include the following:

i. the facility name and address;

ii. the manufacturer and model number of the continuous NOx and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;;

v. the total operating time (hours) of the emissions unit;

vi. the total operating time of the continuous NOx monitoring system while the emissions unit was in operation;

vii. results and dates of quarterly cylinder gas audits;

viii. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

ix. unless previously submitted, the results of any relative accuracy test audit showing the continuous NOx monitor out-of-control and the compliant results following any corrective actions;

x. the date, time, and duration of any/each malfunction** of the continuous NOx monitoring system, emissions unit, and/or control equipment;

xi. the date, time, and duration of any downtime** of the continuous NOx monitoring system and/or control equipment while the emissions unit was in operation; and

xii. the reason (if known) and the corrective actions taken (if any) for each event in b.x. and b.xi.

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

** each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR 60.7]

(5) The permittee shall submit written quarterly deviation (excursion) reports to TES that identify each deviation from the:

a. minimum pressure drop requirement for the water supplied at the discharge of the recirculation pumps supplying water to the Agglo-Filtering modules specified in c);

b. the minimum flue gas static pressure drop across the Agglo-Filtering modules specified in c);

c. the maximum ammonia slip limitation specified in c); and

d. combined emission limitation of 3.00 pounds SO_2 per thousand pounds of fresh feed for P011, B046 and B047.

For each instance where either the water pressure or the flue gas static pressure falls outside the enforceable range, the permittee must satisfy the reporting requirements of 40 CFR 60.7 and must include, among other things: the date(s) and time the pressure was outside the range, the recorded pressure value (or differential pressure) at the time it was outside the range, the cause of the pressure falling outside the range and the corrective action taken to bring the pressure back into the enforceable range. If no deviations occurred during a calendar quarter, then a statement shall be submitted to that effect.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous SO_2 monitoring system:

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR Parts 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of SO_2 emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapter 3745-18, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s). If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect.

b. These quarterly reports shall be submitted to Toledo Environmental Services by January 30, April 30, July 30, and October 30 of each year and shall include the following:

i. the facility name and address;

ii. the manufacturer and model number of the continuous SO_2 and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;

v. the total operating time (hours) of the emissions unit;

vi. the total operating time of the continuous SO_2 monitoring system while the emissions unit was in operation;

vii. results and dates of quarterly cylinder gas audits;

viii. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

ix. unless previously submitted, the results of any relative accuracy test audit showing the continuous SO_2 monitor out-of-control and the compliant results following any corrective actions;

x. the date, time, and duration of any/each malfunction** of the continuous SO_2 monitoring system, emissions unit, and/or control equipment;

xi. the date, time, and duration of any downtime** of the continuous SO_2 monitoring system and/or control equipment while the emissions unit was in operation;

xii. the reason (if known) and the corrective actions taken (if any) for each event in b.x. and xi.;

xiii. the dates for which and brief explanations as to why fewer than 18 valid hours of data were obtained for the continuous monitoring system;

xiv. identification of times when hourly averages have been obtained based on manual sampling methods;

xv. identification of the times when the pollutant concentration exceeded the full span of the continuous monitoring system; and

xvi. description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system to comply with Performance Specifications 2 or 3.

Each report shall address the operations conducted and data obtained during the previous calendar quarter. For any periods for which sulfur dioxide or oxides emissions data are not available, the permittee shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability.

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report.

** each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR 60.7]

(7) [40 CFR Part 63, Subpart UUU] NATIONAL EMISSION STANDARDS FOR HAPS FOR PETROLEUM REFINERIES: CATALYTIC CRACKING UNITS

The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 63, Subpart UUU, including the following sections:

63.1574(a) through (f)	Any notification(s) or updates to the notification that were not previously submitted, including any changes to the operation, maintenance, and monitoring plan.
63.1575(a) through (i)	Semi-annual compliance, deviation, and CEM reports. See Table 43.

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

20 percent opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the visible particulate emission observations performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 and the procedures of 40 CFR 60.11. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

b. Emission Limitation:

The combined CO emissions from P011, B046 and B047 shall be reduced by a minimum of 99% control efficiency

Applicable Compliance Method:

The control efficiency is demonstrated through engineering calculations. Use the data from analyzers to measure percent O_2, percent CO and the percent CO_2 exiting the FCCU directly. Measure the air flow to the FCCU. Through a nitrogen (N_2) balance, the flow rate of the flue gas and the CO can be calculated using the following (7) input parameters:

Total air flow rate (FA) *mmscf/hr*

Bypass air flow rate (BPA) *mscf/hr*

Ambient air temperature (AMBT) *°F*

Moisture in air (M) *mole H_2O/mole air*

CO flue gas analysis (%CO) *vol%=mol%*

CO_2 flue gas analysis (%CO_2) *vol%=mol%*

O_2 flue gas analysis (%O_2) *vol%=mol%*

The calculation is as follows:

Air flow to the Regenerator (RGA): (FA*1000000-BPA*1000) ÷(10.73*520/14.696) *moles/hr*

Dry Air Flow Rate (DAF): RGA*(1-M) *moles/hr*

Nitrogen Conc. in Regen gas (%N): 100-%CO-%CO_2-%O_2

Total dry Regen Gas Flow (DRF): DAF*79.1/%N *moles/hr*

CO_2 Flow Rate (RGCO_2): DRF*%CO_2/100 *moles/hr*

CO Flow Rate (RGCO): DRF*%CO/100 *moles/hr*

O_2 Flow Rate (RGO_2): DRF*%O_2/100 *moles/hr*

N_2 Flow Rate (RGN_2): DRF*%N/100 *moles/hr*

CO Mass Flow Rate: RGCO*28 lb/lb-mole *lbs/hr*

Compare the calculated inlet CO flow rate (lbs/hr) to the outlet CO flow rate (lbs/hr) measured during a performance test to determine the control efficiency (i.e., (inlet CO – outlet CO) divided by the inlet CO and multiply by 100 for percent control efficiency).

c. Emission Limitation:

The combined CO emissions from P011, B046 and B047 shall not exceed 1,087.28 tons per year, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

The annual emission limitation was developed by multiplying the maximum oxygen free stack flow rate (311,470 dscfm) by 60 minutes per hour, multiplied by 24 hours/day, multiplied by 365 days/year, multiplied by the allowable annual CO concentration (180 parts CO by volume dry at 0% O_2), divided by 1,000,000

parts, multiply by the molecular weight of CO (28 lb/lb-mole), and divide by the molar volume (379.43 ft^3/lb-mole), divided by 2000 pounds per ton. The monitoring and recordkeeping requirements of d) shall be used to demonstrate compliance with this emission limitation.

d. Emission Limitation:

The combined CO emissions from P011, B046 and B047 shall not exceed 500 ppmvd at 0% O_2 on a 1-hour average basis

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance using the methods and procedures of 40 CFR 60.106(d) corrected to 0% O_2. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

e. Emission Limitation:

The combined CO emissions from P011, B046 and B047 shall not exceed 180 ppmvd at 0% O_2 based upon a rolling, 365-day average

Applicable Compliance Method:

Compliance with this emission limitation shall be demonstrated by the monitoring and recordkeeping requirements for the continuous CO emissions monitoring system and continuous flow monitoring system required in d).

f. Emission Limitation:

The combined NOx emissions from P011, B046 and B047 shall not exceed 198.51 tons per year, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

The annual emission limitation was developed by multiplying the maximum oxygen free stack flow rate (311,470 dscfm) by 60 minutes per hour, multiplied by 24 hours/day, multiplied by 365 days/year, multiplied by the annual average NOx concentration (20 parts NOx by volume dry at 0% O_2), divided by 1,000,000 parts, multiply by the molecular weight of NO2 (46.01 lb/lb-mole), and divide by the molar volume (379.43 ft3/lb-mole), divided by 2000 pounds per ton. The monitoring and recordkeeping requirements of d) shall be used to demonstrate compliance with this emission limitation.

g. Emission Limitation:

The combined NOx emissions from P011, B046 and B047 shall not exceed 40 ppmvd based on a 7-day rolling average, at 0% oxygen

Applicable Compliance Method:

The following calculation procedure shall be used along with the monitoring and recordkeeping requirements in d) for determining compliance.

i. Calculate each 1-hour average concentration (dry, zero percent oxygen, ppmv) of NOx at the outlet to the add-on control device as specified in 40 CFR 60.13(h). These calculations are made using the emission data collected by the NOx CEMS required in d).

ii. Calculate a 7-day average (arithmetic mean) concentration of NOx for the outlet to the add-on control device using all of the 1-hour average concentration values obtained during 7 successive 24-hour periods.

iii. If supplemental sampling data are used for determining the 7-day averages under this section and such data are not hourly averages, then the value obtained for each supplemental sample shall be assumed to represent the hourly average for each hour over which the sample was obtained.

iv. For the purpose of adjusting pollutant concentrations to zero percent oxygen, the following equation shall be used:

$C_{adj}=C_{meas}[20.9c/(20.9- \%O_2)]$

where:

C_{adj}=pollutant concentration adjusted to zero percent oxygen, ppm or g/dscm

C_{meas}=pollutant concentration measured on a dry basis, ppm or g/dscm

20.9c=20.9 percent oxygen - 0.0 percent oxygen (defined oxygen correction basis), percent

20.9=oxygen concentration in air, percent

$\%O_2$=oxygen concentration measured on a dry basis, percent

h. Emission Limitation:

The combined NOx emissions from P011, B046 and B047 shall not exceed 20 ppmvd based on a 365-day rolling average, at 0% oxygen

Applicable Compliance Method:

The following calculation procedure shall be used along with the monitoring and recordkeeping requirements d) for determining compliance.

i. Calculate each 1-hour average concentration (dry, zero percent oxygen, ppmv) of NOx at the outlet to the add-on control device as specified in 40

CFR 60.13(h). These calculations are made using the emission data collected by the NOx CEMS required in d).

ii. Calculate a 365-day average (arithmetic mean) concentration of NOx for the outlet to the add-on control device using all of the 1-hour average concentration values obtained during 365 successive 24-hour periods.

iii. If supplemental sampling data are used for determining the 365-day averages under this section and such data are not hourly averages, then the value obtained for each supplemental sample shall be assumed to represent the hourly average for each hour over which the sample was obtained.

iv. For the purpose of adjusting pollutant concentrations to zero percent oxygen, the following equation shall be used:

$C_{adj}=C_{meas}[20.9c/(20.9- \%O_2)]$

where:

C_{adj}=pollutant concentration adjusted to zero percent oxygen, ppm or g/dscm

C_{meas}=pollutant concentration measured on a dry basis, ppm or g/dscm

20.9c=20.9 percent oxygen - 0.0 percent oxygen (defined oxygen correction basis), percent

20.9=oxygen concentration in air, percent

$\%O_2$=oxygen concentration measured on a dry basis, percent

i. Emission Limitation:

The combined filterable PM emissions from P011, B046 and B047 shall not exceed 0.45 pound per thousand pounds of coke burn-off

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance using the methods and procedures of 40 CFR 60.106(a) and (b). Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

j. Emission Limitation:

The combined filterable PM emissions from P011, B046 and B047 shall not exceed 165.96 tons per year

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated by multiplying the short term filterable PM emission limitation (0.45 pound per 1,000 pounds of coke burn-off) by the maximum coke burn-off rate (84,200 pounds of coke burnoff per hour) multiplied by the maximum annual hours of operation (8,760 hours/year) and divided by 2,000 pounds per ton.

k. Emission Limitation:

The combined PM_{10} emissions from P011, B046 and B047 shall not exceed 0.90 pound per thousand pounds of coke burn-off.

Applicable Compliance Method:

This emission limitation was based on an emission factor submitted by the permittee based on the permittee's best available information. If required, the permittee shall demonstrate compliance through emissions testing performed in accordance with Methods 201 or 5B and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

l. Emission Limitation:

The combined PM_{10} emissions from P011, B046 and B047 shall not exceed 331.92 tons per year, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated by multiplying the allowable PM_{10} emission rate (0.90 lb/1,000 pounds of coke burn-off) by the maximum coke burn-off rate(84,200 pounds of coke burn-off per hour) multiplied by the maximum annual hours of operation (8760 hrs/yr), and then dividing by 2000 pounds per ton.

m. Emission Limitation:

The combined emissions from P011, B046, and B047 shall not exceed 3.00 pounds of sulfur dioxide (SO_2) per thousand pounds of fresh feed.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 6 or 6C of 40 CFR Part 60, Appendix A. Alternative U.S. EPA Approved test methods may be used with prior approval from the Ohio EPA.

n. Emission Limitation:

The combined SO_2 emissions from P011, B046 and B047 shall not exceed 316 pounds per hour.

Applicable Compliance Method:

This emission limitation is based on the following calculation using the permittee-supplied emission factor of 100 ppmvd SO_2 at 0% oxygen. Multiply the maximum oxygen free stack flow rate (311,470 dscfm) by 60 minutes per hour, multiply by the maximum SO_2 concentration (100 parts SO_2 by volume dry at 0% O_2), divided by 1,000,000 parts, multiply by the molecular weight of SO_2 (64.1 lb/lb-mole), and divide by the molar volume (379.43 ft3/lb-mole).

If required, compliance shall be demonstrated using the methods and procedures of OAC rule 3745-18-04(E)(1). Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio the EPA.

o. Emission Limitation:

The combined SO_2 emissions from P011, B046 and B047 shall not exceed 345.71 tons per year, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

The annual emission limitation was developed by multiplying the maximum oxygen free stack flow rate (311,470 dscfm) by 60 minutes per hour, multiplied by 24 hours/day, multiplied by 365 days/year, multiplied by the annual average SO_2 concentration (25 parts SO_2 by volume dry at 0% O_2), divided by 1,000,000 parts, multiply by the molecular weight of SO_2 (64.1 lb/lb-mole), and divide by the molar volume (379.43 ft3/lb-mole), divided by 2000 pounds per ton. The monitoring and recordkeeping requirements of d) shall be used to demonstrate compliance with this emission limitation.

p. Emission Limitation:

The combined SO_2 emissions from P011, B046 and B047 shall not exceed 25 ppmvd, based upon a rolling, 365-day summation of the daily emissions, at 0% oxygen

Applicable Compliance Method:

The following calculation procedure shall be used for determining compliance.

i. Calculate each 1-hour average concentration (dry, zero percent oxygen, ppmv) of sulfur dioxide at the outlet to the add-on control device as specified in 40 CFR 60.13(h). These calculations are made using the emission data collected under 40 CFR 60.105(a).

ii. Calculate a 365-day average (arithmetic mean) concentration of sulfur dioxide for the outlet to the add-on control device using all of the 1-hour average concentration values obtained during 365 successive 24-hour periods.

iii. If supplemental sampling data are used for determining the 365-day averages under this section and such data are not hourly averages, then the value obtained for each supplemental sample shall be assumed to represent the hourly average for each hour over which the sample was obtained.

iv. For the purpose of adjusting pollutant concentrations to zero percent oxygen, the following equation shall be used:

$C_{adj}=C_{meas}[20.9c/(20.9- \%O_2)]$

where:

C_{adj}=pollutant concentration adjusted to zero percent oxygen, ppm or g/dscm

C_{meas}=pollutant concentration measured on a dry basis, ppm or g/dscm

20.9c=20.9 percent oxygen - 0.0 percent oxygen (defined oxygen correction basis), percent

20.9=oxygen concentration in air, percent

$\%O_2$=oxygen concentration measured on a dry basis, percent

q. Emission Limitation:

The combined SO_2 emissions from P011, B046 and B047 shall not exceed 50 ppmvd based on a 7-day rolling average, at 0% oxygen

Applicable Compliance Method:

The permittee shall demonstrate compliance with this emissions limitation using the methods and procedures of 40 CFR 60.106(h).

r. Emission Limitation:

The combined PM_{10} emissions from P011, B046 and B047 shall be controlled by a minimum of 95%

Applicable compliance method:

If required, the permittee shall demonstrate compliance through emissions testing performed in accordance with Methods 201 or 5B and 202 of 40 CFR Part 51, Appendix M at both the inlet to and the outlet of the wet gas scrubber. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

s. Emission Limitation:

The combined VOC emissions from P011, B046 and B047 shall not exceed 3.67 pounds per hour

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 4 and 25 or 25A, as appropriate, of 40 CFR Part 60, Appendix A. Use of Method 25 or 25A is to be selected based on the results of pre-survey stack sampling and U.S. EPA guidance documents. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

t. Emission Limitation:

The combined VOC emissions from P011, B046 and B047 shall not exceed 16.07 tons per year, based upon a rolling, 365-day summation of the daily emissions

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated by multiplying the short term VOC emission limitation (3.67 pounds per hour) by the maximum annual hours of operation (8,760 hours/year) and divided by 2,000 pounds per ton.

u. Emission Limitation:

Ammonia slip emissions shall not exceed 5 ppmv

Applicable Compliance Method:

The monitoring and recordkeeping requirements of d) shall serve as demonstration of compliance.

If required, the permittee shall demonstrate compliance using U.S. EPA Conditional Test Method (CTM) 027. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

v. Emission Limitation:

The combined sulfuric acid (H_2SO_4) mist emissions from the FCCU (P011) and CO Boilers (B046 and B047) shall not exceed 60.07 pounds per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation using Method 8 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

w. Emission Limitation:

The combined sulfuric acid (H_2SO_4) mist emissions from the FCCU (P011) and CO Boilers (B046 and B047) shall not exceed 263.11 tons per year, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. This emission limitation was developed by multiplying the hourly allowable H_2SO_4 emission limitation (60.07 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton and, therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emissions testing shall be conducted approximately 2.5 years after permit issuance and within 6 months prior to permit renewal:

i. concentrations: ammonia (1-hr average); and

ii. mass emissions rates for filterable PM (lb/1000 pounds of coke burn-off), PM_{10} (lb/hr and lb/1000 pounds of coke burnoff), VOC (lb/hr) and H_2SO_4 (lb/hr).

b. The following test method(s) or other test methods as approved by Ohio EPA shall be employed to demonstrate compliance with the allowable concentrations, mass emission rate(s) and control efficiency:

i. 40 CFR 60.106(a) and (b) for filterable PM (lb/ton of coke burnoff);

ii. Methods 201 or 5B and 202 of 40 CFR Part 51, Appendix M for lb/hr PM_{10} (uncontrolled and controlled emissions);

iii. Methods 1 through 4 and 25 or 25A, as appropriate, of 40 CFR Part 60, Appendix A. Use of Method 25 or 25A is to be selected based on the results of pre-survey stack sampling and U.S. EPA guidance documents;

iv. U.S. EPA Conditional Test Method (CTM) 027 for ammonia emissions; and

v. Method 8 of 40 CFR Part 60, Appendix A for H_2SO_4 emissions.

c. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to TES for all emission tests. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s) and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in TES refusal to accept the results of the emission test.

Personnel from TES shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of any emissions tests shall be signed by the person or persons responsible for the tests and submitted to TES within 30 days following completion of the tests.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emissions testing shall be conducted within 6 months prior to permit renewal:

i. mass emissions rates for SO_2;

ii. concentrations of CO (1 hour average), NOx and SO_2 (7 day rolling average); and

iii. CO control efficiency (testing shall include a determination of the calculated uncontrolled and controlled CO emissions to determine the control efficiency).

b. The following test method(s) or other test methods as approved by Ohio EPA shall be employed to demonstrate compliance with the allowable concentrations, mass emission rate(s) and control efficiency:

i. Methods 1-4 and 6 or 6C of 40 CFR Part 60, Appendix A for determining lb/hr SO_2 emissions;

ii. Methods 1 through 4 of 40 CFR part 60, Appendix A and the methods and procedures of 40 CFR 60.106(d) for CO (uncontrolled and controlled emissions);

iii. See f)(1) for determining the 7 day rolling average NOx concentrations. A relative accuracy test audit (RATA) conducted within 6 months of this time frame can be used in lieu of a separate stack test provided the following conditions are met:

(a) Three (3) RATA test runs are added together to equal one (1) stack test run;

(b) The emissions unit is operating at or near it's maximum capacity; and

(c) The drift test passes at the end of each RATA test run;

iv. 40 CFR 60.106(h) for 7 day rolling average SO_2 concentrations. A relative accuracy test audit (RATA) conducted within 6 months of this time frame can be used in lieu of a separate stack test provided the following conditions are met:

(a) Three (3) RATA test runs are added together to equal one (1) stack test run;

(b) The emissions unit is operating at or near it's maximum capacity; and

(c) The drift test passes at the end of each RATA test run.

c. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to TES for all emission tests. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s) and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in TES refusal to accept the results of the emission test.

Personnel from TES shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of any emissions tests shall be signed by the person or persons responsible for the tests and submitted to TES within 30 days following completion of the tests.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall conduct certification tests of the continuous NOx, SO_2 and CO monitoring systems in units of the applicable standard(s) to demonstrate compliance with 40 CFR, Part 60, Appendix B, Performance Specifications 2, 3 and 4; and ORC section 3704.03(I).

Personnel from the Ohio EPA Central Office and the Ohio EPA District Office or Local Air Agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to Ohio EPA, one copy to the Ohio EPA District Office or Local Air Agency and one copy to Ohio EPA Central Office, and pursuant to OAC rule 3745-15-04, within 30 days after the test is completed.

Certification of the continuous NOx, SO_2 and CO monitoring systems shall be granted upon determination by the Ohio EPA, Central Office that the system meets the requirements of 40 CFR, Part 60, Appendix B, Performance Specifications 2, 3 and 4; and ORC section 3704.03(I).

(5) Ongoing compliance with the opacity, NOx, SO_2 and CO limitations contained in this permit, 40 CFR Part 60, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the requirements of 40 CFR Part 60.

[Authority for term: OAC rule 3745-77-07(C)(1); 40 CFR 60.13 and 40 CFR 60, Appendices B and F]

(6) [40 CFR 63, Subpart UUU] NATIONAL EMISSION STANDARDS FOR HAPS FOR PETROLEUM REFINERIES: CATALYTIC CRACKING UNITS

The permittee shall comply with the applicable testing requirements required under 40 CFR Part 63, Subpart UUU including, but not limited to, the following sections:

63.1564(c)(1) and (2)	Demonstrate continuous compliance with emission limitations in Tables 1 and 2, and the operation maintenance and monitoring plan (OMMP).
63.1565(c)(1) and (2)	Demonstrate continuous compliance with the emission limitation in Table 8 according to the method in Table 13. Demonstrate compliance with the work practice standards by complying with the operation, maintenance and monitoring plan (OMMP).
63.1569(c)(1) and (2)	Demonstrate continuous compliance with the work practice standards for bypass lines according to the requirements of Table 39. Demonstrate continuous compliance with the alternative work practice standards in (a)(2) of this section by complying with the procedures in your operation, maintenance, and monitoring plan
63.1571(a) through (e)	Conducting the initial compliance tests or performance tests as applicable; procedures to use for engineering assessment; how to adjust the process or control device measured values when establishing an operating limit; and how to change the operating limit.

g) Miscellaneous Requirements

(1) The following tables from 40 CFR Part 63 Subpart UUU are applicable to this emissions unit:
Tables 1; 2; 3; 5; 6; 7; 8; 9; 10; 12; 13; 14; 36; 37; 38; 39; 40; 41; 42; 43 and 44.

[Authority for term: 40 CFR 63, Subpart UUU]

14. P012, SRU

Operations, Property and/or Equipment Description:

P012 - Claus sulfur recovery unit No. 1 and sulfur pit with tail gas unit and incinerator. Emissions from the Claus sulfur recovery unit will be vented to the number 1 tail gas treater with a 7 mmBtu/hr incinerator.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI 04-01447 issued 9/29/06 and modified on 1/23/07, 2/23/09 1/14/10, 5/28/10, 1/27/2011 and 1/6/2012 (P0108943))	See b)(2)a., (2)f. and (2)g.
b.	OAC rule 3745-18-54(O)(9)	0.07 pound of sulfur dioxide per pound of sulfur processed See b)(2)h.
c.	OAC rule 3745-21-09(T)	See b)(2)g.
d.	40 CFR Part 60, Subpart A (40 CFR 60.1-19)	See b)(2)a. and (2)c.
e.	40 CFR Part 60, Subpart J (40 CFR 60.100-109) [Pursuant to the Consent Decree entered March 14, 2006 and OAC rule 3745-31-05(D), the sulfur recovery unit (SRU is an affected facility under NSPS Subpart J.]	See b)(2)a. and (2)b.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
f.	40 CFR Part 63, Subpart A (40 CFR 63.1577)	See b)(2)d.
g.	40 CFR Part 63, Subpart UUU (40 CFR 63.1560-1579) [In accordance with 40 CFR 63.1561(a)(1)(iii), this emissions unit is a SRU at an existing petroleum refinery subject to the NSPS for sulfur dioxides in 40 CFR 60.104(a)(2) and subject to the emission limitations/control measures specified in this section.]	See b)(2)b.

(2) Additional Terms and Conditions

a. Per the Consent Decree, entered March 14, 2006, this emissions unit shall be an affected facility under NSPS, 40 CFR Part 60, Subparts A and J. Terms c)(1) and (2) set forth a compliance plan for this emissions unit to comply with 40 CFR Part 60, Subpart J. The permittee shall comply with the requirements of 40 CFR Part 60, Subparts A and J applicable to this emissions unit by no later than December 31, 2009.

Compliance with c)(1) and (2) shall satisfy the notice requirements of 40 CFR 60.7(a) and the initial performance test requirements of 40 CFR 60.8.

b. The permittee shall not discharge or cause the discharge of any gases into the atmosphere from any Claus sulfur recovery plant containing in excess of 250 ppm by volume (dry basis) of sulfur dioxide (SO_2) at zero percent excess air as a rolling, 12-hour average.

c. 40 CFR Part 60, Subpart A provides applicability provisions, definitions, and other general provisions that are pertinent to emissions units affected by 40 CFR Part 60.

d. Table 44 of 40 CFR Part 63, Subpart UUU shows which parts of the General Provision in 40 CFR Part 63.1 through 63.15 apply to this emissions unit.

e. The permittee shall maintain a Preventive Maintenance and Malfunction plan (PMMAP) as described in the Consent Decree dated May 2, 1995. The permittee shall follow the control plan to minimize air quality impacts during SRU turnarounds and malfunctions. NOTE: For sources affected by the Preventative Maintenance Malfunction and Abatement Plan (PMMAP), required by the 1995 Consent Order (May 11, 1995, Lucas County, Case No. 95-1037), compliance

may be demonstrated by maintaining compliance with the maintenance and operational requirements of the Preventive Maintenance and Operation Plan (PMOP), required by the 2006 Consent Decree (E.D. Pa., March 20, 2006, Case No. 05CV2866) and is incorporated herein by reference.

f. The permittee shall develop and maintain a written quality assurance/quality control plan for the continuous SO_2 monitoring systems, designed to ensure continuous valid and representative readings of SO_2 emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous SO_2 monitoring systems must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60 Subparts A and J.

g. The leak detection and repair requirements of OAC rule 3745-21-09(T) applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

h. On March 24, 2011, OAC rule 3745-18-54(O) was revised in its entirety; therefore, the 18-54(O) rule that was in effect prior to this date is no longer part of the State regulations. The rule revision will be submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until U.S. EPA approves the revision to OAC rule 3745-18-54, the requirement to comply with the previous 18-54 rule provisions still exists as part of the federally-approved SIP for Ohio. The following emission limitation for emissions unit P012 (sulfur recovery unit 1) shall become void after U.S. EPA approves the rule revision: 0.07 pound of sulfur dioxide per pound of sulfur processed. The new emission limitation shall be: Amine Claus sulfur recovery unit (OEPA source number P012); a maximum of 0.025 per cent by volume of sulfur dioxide at zero per cent oxygen on a dry basis. Once the SIP revision is approved, demonstration of compliance with 40 CFR 60, Subparts A and J will also constitute a demonstration of compliance with OAC 3745 -18-54(O)(9). The following terms and conditions shall become void after U.S. EPA approves the rule revision:

[d)(3) and f(1)(b)]

c) Operational Restrictions

(1) [Consent Decree (CD), section I.45. and PTI P0106143] Sulfur Pit Emissions
The permittee shall route all sulfur pit emissions so that they are eliminated, controlled, or included and monitored as part of the sulfur recovery plant's emissions subject to the 40 CFR Part 60, Subpart J limitation for SO_2, 40 CFR 60.104(a)(2).

(2) [CD, section I.47.a. and PTI P0106143] Good Operation and Maintenance
The permittee submitted to the U.S. EPA, Ohio EPA, and Toledo Environmental Services a summary of the plans, implemented or to be implemented, at the Toledo

Refinery for enhanced maintenance and operation of the sulfur recovery plant (SRP), and tail gas units (TGUs), including any supplemental control devices, and the appropriate upstream process units. This plan shall be termed a Preventive Maintenance and Operation Plan (PMOP). The PMOP shall be a compilation of the permittee's approaches for exercising good air pollution control practices and for minimizing SO_2 emissions (including the PMOP described under b)(2)f. at the Toledo Refinery. The PMOP shall have as its goal the elimination of Acid Gas Flaring and the continuous operation of the SRP, between scheduled maintenance turnarounds, with a minimization of emissions. The PMOP shall include, but not be limited to, sulfur shedding procedures, startup and shutdown procedures, emergency procedures and schedules to coordinate maintenance turnarounds of the SRP Claus trains and associated TGUs to coincide, if necessary to minimize emissions, with scheduled turnarounds of major Upstream Process Units. The permittee shall operate consistent with the PMOP at all times, including periods of startup, shutdown and malfunction of its SRP. Changes to a PMOP related to minimizing acid gas flaring and/or SO_2 emissions shall be summarized and reported by the permittee to U.S. EPA, Ohio EPA and Toledo Environmental Services on an annual basis.

(3) [CD, section I.47.b. and PTI 0106143] Good Operation and Maintenance
U.S. EPA, Ohio EPA and Toledo Environmental Services do not, by their review of a PMOP and/or by their failure to comment on a PMOP, warrant or aver in any manner that any of the actions that the permittee may take pursuant to such PMOP will result in compliance with the provisions of the Clean Air Act or any other applicable federal, state, or local law or regulation. Notwithstanding the review by EPA or any state agency of a PMOP, the permittee shall remain solely responsible for compliance with the Clean Air Act and such other laws and regulations.

(4) [40 CFR 63, Subpart UUU] NATIONAL EMISSION STANDARDS FOR HAPS FOR PETROLEUM REFINERIES: SULFUR RECOVERY UNIT

The permittee shall comply with the applicable restrictions in 63.1568, including the following sections:

63.1568(a)(3)	Must prepare an operation, maintenance, and monitoring plan (OMMP) according to the requirements in 63.1574(f) and operate accordingly.

d) Monitoring and/or Recordkeeping Requirements

(1) SO_2 CEMS RECORDKEEPING
The permittee shall maintain on-site documentation from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous SO_2 monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 2. The letter/document of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and

transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendix B]

(2) The permittee shall operate, and maintain equipment to continuously monitor and record SO_2 emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

The permittee shall maintain records of data obtained by the continuous SO_2 monitoring system including, but not limited to:

a. emissions of SO_2 in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;

b. emissions of SO_2 in all units of the applicable standard(s) in the appropriate averaging period;

c. results of quarterly cylinder gas audits;

d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

f. hours of operation of the emissions unit, continuous SO_2 monitoring system, and control equipment;

g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous SO_2 monitoring system;

h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous SO_2 monitoring system; as well as,

i. the reason (if known) and the corrective actions taken (if any) for each such event in g. and h.

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

NOTE: Valid cycle time CEMS data shall not be required during periods in which scheduled CEMS system maintenance events (such as system blow-backs) occur. CEMS cycle time data recorded during a scheduled maintenance event shall be flagged as invalid due to the scheduled maintenance event, and not used in future compliance determination calculations.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendices B and F]

(3) SO_2 RECORDKEEPING

a. The permittee shall maintain daily records of the following information, while the emissions unit is in operation:

i. the total amount of sulfur processed;

ii. the total SO_2 emissions, in pounds, from the Claus unit and the flare(s); and

iii. the average SO_2 emission rate, in pound of SO_2 per pound of sulfur processed.

b. For a specific period of time, the amount of sulfur processed is equal to the amount of sulfur entering the Claus unit plus the amount of any sulfur bypassed to the flare(s) from the amine unit and/or the sour water stripper.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) [40 CFR 63, Subpart UUU] NATIONAL EMISSION STANDARDS FOR HAPS FOR PETROLEUM REFINERIES: SULFUR RECOVERY UNIT

The permittee shall comply with the applicable monitoring and recordkeeping requirements under this Subpart including the following sections:

63.1568(b)	*Requirements for HAP Emissions from SRUs*: Install, operate and maintain a continuous monitoring system according to 63.1572 and Table 31; correct reduced sulfur samples to 0% excess air.
63.1568(c)	Demonstrate continuous compliance with the 250 ppmvd SO_2 at 0% excess air according to the methods specified in Table 34.
63.1569(a) through (c)	*Requirements for HAP emissions from bypass lines*.
63.1570(a)	*General Requirements*: Must be in compliance with the SO_2 standards except during startup, shutdown and malfunctions.
63.1570(c)	Requirements for operating and maintaining the affected source including the air pollution control equipment and monitoring equipment.
63.1570(d) through (g)	Develop a written startup, shutdown and malfunction plan (SSMP) and operate accordingly.
63.1572(a), (c), and (d)	*Monitoring, Operating and Maintenance Requirements*: Install, operate and maintain a SO_2 CEM according to Table 40. If applicable, the permittee must maintain a

	continuous parameter monitoring system according to Table 41. Monitor and collect data according to the requirements of (d)(1) and (2).
63.1573(a) through (e)	*Monitoring Alternatives*: Monitoring alternatives for gas flow rate; pH; another type of monitoring system; other process or control device operating parameters. Information on how to request monitor alternative parameters.
63.1574(f)	*Records:* requirements of the OMMP for the continuous monitoring system.
63.1576(a)	*Recordkeeping Requirements*: Keep records of notifications submitted; records related to startup, shutdown and malfunctions; and records of performance tests.
63.1576(b)	Records for the monitoring data for the SO_2 CEMs and records of any deviations.
63.1576(d)	Records as required by Tables 34 and 35 for the SRU and Table 39 for bypass lines.
63.1576(e)	Keep a current copy of the operation, maintenance and monitoring plan and records showing continuous compliance with the plan.
63.1576(f)	Record requirements for any changes that affect emission control system performance.
63.1576(g) through (i)	Requirements for records as to the form of the record and length of time to store them and where the records may be stored.

(5) The permittee must comply with the operation, maintenance and monitoring plan (OMMP) as required by 40 CFR Part 63, Subpart UUU, submitted on April 15, 2010, or any future updates.

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center (Air Services online web portal).

(2) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous SO_2 monitoring system:

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR Parts 60.7 and 60.13(h) and

the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter, documenting all instances of SO_2 emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapter 3745-18, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance.

Excess emissions shall be reported in units of the applicable standard(s). If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect.

b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

i. the facility name and address;

ii. the manufacturer and model number of the continuous SO_2 and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;

v. the total operating time (hours) of the emissions unit;

vi. the total operating time of the continuous SO_2 monitoring system while the emissions unit was in operation;

vii. results and dates of quarterly cylinder gas audits;

viii. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

ix. unless previously submitted, the results of any relative accuracy test audit showing the continuous SO_2 monitor out-of-control and the compliant results following any corrective actions;

x. the date, time, and duration of any/each malfunction** of the continuous SO_2 monitoring system, emissions unit, and/or control equipment;

xi. the date, time, and duration of any downtime** of the continuous SO_2 monitoring system and/or control equipment while the emissions unit was in operation;

xii. the reason (if known) and the corrective actions taken (if any) for each event in (b)(x) and (xi);

xiii. percent availability of the SRU;

xiv. amounts (tons), and points of emission of excess sulfur dioxide emissions that are caused by Acid Gas Flaring and/or Tail Gas Incidents as defined in the CD entered March 14, 2006;

xv. a summary of the root cause and corrective actions taken for each Acid Gas Flaring Incident and Tail Gas Incident; and

xvi. the date, time, and duration of each Acid Gas Flaring Incident and Tail Gas Incident.

Each report shall address the operations conducted and data obtained during the previous calendar quarter. For any periods for which sulfur dioxide or oxides emissions data are not available, the permittee shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability.

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report.

** each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit.

[Authority for term: 40 CFR 60.7]

(3) [40 CFR Part 63, Subpart UUU] NATIONAL EMISSION STANDARDS FOR HAPS FOR PETROLEUM REFINERIES: SULFUR RECOVERY UNIT

The permittee shall submit semiannual reports and such other notifications and reports to the appropriate Ohio EPA District office or local air agency as are required pursuant to this Subpart, including the following sections:

63.1574(a) through (d)	Initial notifications stated in 63.1574(a) were previously sent by the permittee. Must send the notification of compliance and include the information in Table 42. Must prepare and implement an operation, maintenance, and monitoring plan for each control system and continuous monitoring system as stated in 63.1574(f).
63.1574(f)(1)	Submit any changes to the OMMP for review and approval and comply with the plan until approved.
63.1575(a) through	Submit each semiannual report in Table 43 that applies to this

(c)	emissions unit regarding emission limitations and work practice deviations. The reporting period is from Jan. 1 to June 30 and from July 1 to Dec. 31. The reports must be delivered no later than July 31 or January 31, respectively and contain the information contained in 63.1575(c)(1) through (4).
63.1575(d)	Deviations from the emission limitation and work practice standards shall contain the information required in (d) for the report.
63.1575(e)	Required information for reports for CEMs.
63.1575(f)	Include the information in (f)(1) and (2) if applicable, pertaining to performance tests and any requested change in the applicability of a standard.
63.1575(g)	The permittee may submit reports required by other regulations in place of or as part of the compliance report if they contain the required information.
63.1575(h)	Reporting requirements regarding startups, shutdowns and malfunctions

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

250 ppmvd SO_2 at 0% excess air as a rolling, 12-hr average and a maximum of 0.025 per cent by volume of sulfur dioxide at zero per cent oxygen on a dry basis. NOTE: the latter becomes effective after U.S. EPA approves the SIP for OAC rule 3745-18-54(O)(9).

Applicable Compliance Method:

The monitoring and recordkeeping requirements of d) shall be used to demonstrate compliance. If required, the permittee shall demonstrate compliance using the methods and procedures of 40 CFR 60.106(f)(1).

Alternative U.S. EPA Approved test methods may be used with prior approval from the Ohio EPA.

b. Emission Limitation:

0.07 pound of sulfur dioxide per pound of sulfur processed

Applicable Compliance Method:

If required, the test methods and procedures used for determining compliance with this emission limit are those specified in OAC rule 3745-18-04(B), which refers to 40 CFR 60.46.

Alternative U.S. EPA Approved test methods may be used with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) Ongoing compliance with the SO_2 emission limitations contained in this permit, 40 CFR Part 60, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit; and through demonstration of compliance with a quality assurance/quality control plan which meets the requirements of 40 CFR Part 60.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendices B and F]

(3) The permittee shall conduct certification tests of the continuous SO_2 monitoring system in units of the applicable standard(s) to demonstrate compliance with 40 CFR, Part 60, Appendix B, Performance Specifications 2; and ORC section 3704.03(I).

Personnel from the Ohio EPA Central Office and the Ohio EPA District Office or Local Air Agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to Ohio EPA, one copy to the Ohio EPA District Office or Local Air Agency and one copy to Ohio EPA Central Office, and pursuant to OAC rule 3745-15-04, within 30 days after the test is completed.

Certification of the continuous SO_2 monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets the requirements of 40 CFR, Part 60, Appendix B, Performance Specifications 2; and ORC section 3704.03(I).

g) Miscellaneous Requirements

(1) The following tables from 40 CFR 63 Subpart UUU are applicable to this emissions unit: Tables 29; 30; 31; 33; 34; 35; 36; 37; 38; 39; 40; 41; 42; 43 and 44.

[Authority for term: 40 CFR 63, Subpart UUU]

15. P013, BTX Recovery

Operations, Property and/or Equipment Description:

P013 - BTX Recovery - Plant 9-4 BTX Aromatics Complex, solvent extractors & fractionators (175,160 lb/hr)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-095 issued 5/17/1977)	The requirements established pursuant to this rule are equivalent to the requirements of OAC rule 3745-21-09(T).
b.	OAC rule 3745-21-09(T)	See b)(2)c.
c.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	In accordance with 63.103(a), Table 3 of 40 CFR Part 63, Subpart F and Table 4 of Subpart H of Part 63, provides provisions of 40 CFR Part 63, Subpart A that are applicable to this emissions unit.
d.	40 CFR Part 63, Subpart F (40 CFR 63.100-107) [In accordance with 40 CFR 63.100, this emissions unit manufactures as a primary product a listed chemical from Table 1 of this subpart; use as a reactant or manufacture as a product, or co-product, one or more of the organic hazardous air pollutants listed in table 2 of this subpart and is located at a major source as defined in section 112(a) of the Act.]	This Subpart provides applicability provisions, definitions, and other general provisions that are applicable to Subpart H.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	40 CFR Part 63, Subpart H (40 CFR 63.160-183) [In accordance with 40 CFR 63.160(a), the equipment comprising this emissions unit includes pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, instrumentation systems, and control devices or closed vent systems that are intended to operate in organic hazardous air pollutant service 300 hours or more during the calendar year within a source subject to the provisions of a specific Subpart in 40 CFR Part 63, Subpart F.]	See b)(2) a. and b)(2)b.

(2) Additional Terms and Conditions

a. Pursuant to 40 CFR Part 63.160(b)(2), this emissions unit is required to comply only with the provisions of 40 CFR Part 63, Subpart H.

b. The leak detection and repair requirements of the HON LDAR program in 40 CFR Part 63, Subpart H, applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

c. The leak detection and repair requirements of OAC rule 3745-21-09(T) applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) [40 CFR Part 63, Subpart F] NESHAP FROM THE SYNTHETIC ORGANIC CHEMICAL MANUFACTURING INDUSTRY

The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, Subpart F, including the following sections:

.103 – General Recordkeeping Requirements	
63.103(c)	Recordkeeping requirements for emissions unit subject to 40 CFR Part 63, Subparts F, G, and H to keep records for 5 years unless Subparts G and H requires records for a different time period.
63.103(c)(1)	All applicable records shall be maintained in such a manner that they can be readily accessed. The most recent 6 months of records shall be retained on site or accessible from a computer. The remaining 4.5 yrs, the records my be retained offsite.
63.103(c)(2)	Recordkeeping requirements for start-up, shutdown and malfunctions of process equipment, control equipment or CEMS per 63.103(c)(2)(i) through (2)(iii).
63.103(c)(3)	Records of start-up, shutdown and malfunction and continuous monitoring system calibration and maintenance are not required if they pertain solely to Group 2 emission points, as defined in 40 CFR Part 63.111, that are not included in an emissions average.
63.104 Heat Exchange System Requirements	
63.104(a)	Unless one of the conditions in 63.104(a)(1) through (a)(6) are met, monitor each heat exchange system used to cool process equipment according to 63.104(b) or (c). Whenever a leak is detected, comply with 63.104(d).
63.104(b)	The permittee who elects to comply with the requirement of 63.104(a) by monitoring the cooling water for the presence of HAPs to indicate a leak shall comply with the requirements of 63.104(b)(1) through (b)(6), as applicable.
63.104(c)	The permittee who elects to comply with the requirement of 63.104(a) by monitoring a surrogate indicator of heat exchange system leaks shall comply with the requirements of 63.104(c)(1) through (c)(3).
63.104(d)	Repair Requirements - If a leak is detected, repair within 45 days except as provided in 63.103(e).
63.104(e)	Delay of Repair Requirements - Delay of Repair is allowed if equipment is isolated from the process or if a shutdown is required and any one of the conditions in paragraphs 63.103(e)(1) and (e)(2) are met.

63.104(f) and (f)(1)	Required Records for monitoring, detecting leaks and repair of leaks along with the methods used to confirm repair.
63.105 – Maintenance Wastewater Requirements	
63.105(a)	Comply with the requirements of 63.105(b) through 63.105(e) for maintenance wastewaters containing organic HAP's listed in Table 9 of subpart G.
63.105(b)	Prepare a description of maintenance procedures for management of wastewaters generated from the emptying and purging of equipment in the process during temporary shutdowns for inspections, maintenance, and repair and during periods which are not shutdowns. Information for the descriptions is specified in (b)(1) – (b)(3).
63.105(c)	Update the information required by paragraph (b) of this section as needed following each maintenance procedure based on the actions taken and the wastewaters generated in the maintenance procedure of (b)(3).
63.105(d)	Incorporate the procedures described in 63.105(b) and (c) as part of the startup, shutdown, and malfunction plan required under 63.6(e)(3).
63.105(e)	Recordkeeping requirements of the information in 63.105(b) and (c) for the startup, shutdown, and malfunction plan as required under 63.6(e)(3) of Subpart A.

e) Reporting Requirements

(1) [40 CFR Part 63, Subpart F] NESHAP FROM THE SYNTHETIC ORGANIC CHEMICAL MANUFACTURING INDUSTRY

The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 63, Subpart F, including the following sections:

63.103(d)	*General Reporting Requirements*
63.104(f)(2)	*Reports for Heat Exchange Systems/Cooling Towers*: If the delay of repair provisions are invoked, the information in 63.104(f)(2)(i) through (f)(2)(v) shall be submitted if the leak remains unrepaired, the information shall also be submitted in each subsequent periodic report, until repair of the leak is reported.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) [40 CFR Part 63, Subpart F] NESHAP FROM THE SYNTHETIC ORGANIC CHEMICAL MANUFACTURING INDUSTRY

The permittee shall comply with the following requirements as stated in 40 CFR 63, Subpart F, including the following sections:

63.102 – General Standards	
63.102(a)	The provisions of this subpart applies at all times except for the exceptions stated in 63.102(a)(1) through (a)(4).
63.102(b)	Refer to the requirements in 63.102(b)(1) through (b)(3), if seeking permission to use an alternative means of compliance with an emission limitation that achieves a reduction in organic HAP emissions.

16. P014, Benzene/Nonene Loading

Operations, Property and/or Equipment Description:

P014 - Benzene/Nonene railcar loading - (Group 1 transfer rack with a rack, weighted average vapor pressure greater than or equal to 1.5 psia); while loading benzene, a thermal oxidizer is used as control.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	In accordance with 63.103(a), Table 3 of 40 CFR Part 63, Subpart F and Table 4 of 40 CFR Part 63, Subpart H, provides applicability provisions, definitions, and other general provisions of 40 CFR Part 63, Subpart A that are applicable to this emissions unit.
b.	40 CFR Part 63, Subpart F (40 CFR 63.100-107) [In accordance with 40 CFR 63.100, the provisions of Subparts F, G, and H of this part apply to chemical manufacturing process units that meet all the criteria specified in 63.100(b).This Group 1 loading rack is considered a part of the chemical manufacturing process unit.]	This Subpart provides applicability provisions, definitions, and other general provisions that are applicable to Subparts G and H.
c.	40 CFR Part 63, Subpart G (40 CFR 63.110-153) [In accordance with 40 CFR 63.110(a), this emissions unit is a	In accordance with 40 CFR 63.126(a), the permittee shall equip each Group 1 transfer rack with a vapor collection system and control device.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	transfer rack subject to Subpart F and is an existing Group 1 source as defined in 63.111.]	
Equipment Leaks		
d.	40 CFR Part 63, Subpart H (40 CFR 63.160-183) [In accordance with 40 CFR 63.160(a), the equipment comprising this emissions unit includes pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, instrumentation systems, and control devices or closed vent systems that are intended to operate in organic hazardous air pollutant service 300 hours or more during the calendar year within a source subject to 40 CFR Part 63, Subpart F.]	See b)(2)a., b)(2)b. and b)(2)c.
e.	OAC rule 3745-21-09(T)	See b)(2)d.
f.	OAC rule 3745-31-05(A)(3) (PTI 04-478 issued 7/13/1988, modified on 9/28/1988)	See c)(1) The requirements of this rule also include compliance with the requirements of 40 CFR 63 Part 63, Subpart H

(2) Additional Terms and Conditions

a. Pursuant to 40 CFR Part 63.110(c)(1) of Subpart G, a Group 1 transfer rack that is also subject to the provisions of 40 CFR Part 61 Subpart BB, is required to comply only with the provisions of 40 CFR Part 63 Subpart G.

b. Pursuant to 40 CFR Part 63.160(b)(2), equipment to which 40 CFR 63 Subpart H applies that is also subject to the provisions of 40 CFR Part 61, is required to comply only with the provisions of 40 CFR 63 Subpart H when loading benzene or other HAPS.

c. For equipment leaks on this emissions unit that meet the requirements in 40 CFR Part 63, Subpart H, (i.e., pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, instrumentation systems, and control devices) shall meet the requirements of the leak detection and repair requirements stated in 40 CFR Part 63, subpart H subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

d. When loading nonene, meet the requirements of the leak detection and repair requirements stated in OAC rule 3745-21-09(T) subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

c) Operational Restrictions

(1) The permittee shall use submerged fill whenever this emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(A)(1)]

(2) [40 CFR 63, Subpart G] NESHAP FROM THE SYNTHETIC ORGANIC CHEMICAL MANUFACTURING INDUSTRY FOR PROCESS VENTS, STORAGE VESSELS, TRANSFER OPERATIONS, AND WASTEWATER

The permittee shall comply with the applicable operational restrictions under 40 CFR 63 Subpart G, including the following sections:

63.126 - Transfer Operations Provisions – Reference Control Technology	
63.126(a), (a)(1) – (a)(3)	Vapor collection system and control device requirements for Group 1 transfer racks.
63.126(b) and (b)(1)	For each Group 1 transfer rack, reduce emissions of total organic HAPs by 98 weight-percent or to an exit concentration of 20 parts per million by volume, whichever is less stringent. When utilizing combustions devices for control, the emission reduction or concentration shall be calculated on a dry basis, corrected to 3-percent oxygen. Compliance may be achieved by using any combination of combustion, recovery, and/or recapture devices.
63.126(e) through (h)	Requirements for when loading organic HAP's into tank trucks and railcars.
63.126(i)	Requirements for valves that divert the vent stream to the atmosphere.

d) Monitoring and/or Recordkeeping Requirements

(1) [40 CFR 63, Subpart G] NESHAP FROM THE SYNTHETIC ORGANIC CHEMICL MANUFACTURING INDUSTRY FOR PROCESS VENTS, STORAGE VESSELS, TRANSFER OPERATIONS, AND WASTEWATER

The permittee shall comply with the applicable monitoring and recordkeeping requirements under 40 CFR 63 Subpart G, including the following sections:

63.127-Transfer Operations Provisions – Monitoring Requirements:	
63.127(a) and (a)(1)	Requirements for Group 1 transfer racks equipped with a combustion device to ensure that the equipment is installed, calibrated, maintained, and operated according to the manufacturers' specifications. Where an incinerator is used, a temperature monitoring device equipped with a continuous recorder is required. Where an incinerator other than a catalytic incinerator is used, a temperature monitoring device shall be installed in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs.
63.127(c) and (c)(2)	Requirements for requesting approval to monitor parameters other than those listed in 40 CFR 63.127(a).
63.127(d)	Requirements for Group 1 transfer rack using a vent system that contains by-pass lines that could divert a vent stream flow away from the control device. Also lists equipment that is exempt for safety purposes that are not subject to this paragraph
63.127(e)	Establish a range that indicates proper operation of the control device for each parameter monitored under paragraphs a. and b. of this section and submit the information required in 40 CFR Part 63.152(b)(2) of Subpart G in the Notification of Compliance Status or the operating permit application or amendment.
63.128-Transfer Operations Provisions – Procedures:	
63.128(e)	Requirements for inspecting the vapor collection system and vapor balancing system according to 40 CFR 63.148.
63.128(h)	Alternative requirements for transfer racks that transfer less than 3.1 million gallons per year (11.8 million liters/yr) of liquid organic HAP.

63.129-Recordkeeping for Performance Tests and Notification of Compliance Status:	
63.129(a)	Recordkeeping requirements for Group 1 transfer racks as to their accessibility; data that was to be included in the Notification of Compliance report; information to be recorded when using a control device, a flare or a scrubber; the halogen concentration in a vent stream and reporting requirements if an emission stream is routed to a fuel gas system or process.
63.129(b)	Requirements for approval to use a control device other than those listed in Table 7 of Subpart G.
63.129(c)	Requirements for establishing a range for the parameters monitored according to Table 7 of Subpart G.
63.129(d)	Keep records describing in detail the vent system used to vent each affected transfer vent stream to a control device.
63.129(e) and (f)	Recordkeeping and reporting requirements for transfer racks that transfer less than 3.1 million gallons per year of liquid organic HAP
63.130 Periodic Recordkeeping and Reporting Requirements:	
63.130(a)	Recordkeeping requirements if a control device is used to comply with 63.126(b)(1) or 63.126(b)(2), i.e., records for monitored parameters, flares, carbon adsorber, by-pass lines, boilers or process heaters .
63.130(b)	Recordkeeping or visual inspection requirements for a vapor collection system containing valves that could divert the emission stream away from the control device is used
63.130(c)	Required records if a flare is used to comply with this Subpart.
63.130(e)	Recordkeeping requirements for verification of DOT tank certification or Method 27 testing, required in 40 CFR Part 63.126(e), has been performed. Various recordkeeping methods are allowed.
63.130(f)	Requirements for Group 1 or Group 2 transfer racks to record, update annually, and maintain the information specified in 63.130(f)(1) through (f)(3) in a readily accessible location on site.

63.148 Leak Inspection Provisions:	
63.148(a)	Except as provided in 63.148(k), for each vapor collection system, closed-vent system, fixed roof, cover, or enclosure required to comply with this section, the permittee shall comply with the requirements of 63.148(b) through (j).
63.148(b)	Annual visual inspection requirements for each vapor collection system and closed-vent system with hard-piping or ductwork. Semi-annual visual inspection requirements for fixed roof, covers and/or enclosures.
63.148(c)	Inspection procedures for each vapor collection system, closed vent system, fixed roof, cover, and enclosure.
63.148(d)	Leaks, as indicated by an instrument reading greater than 500 parts per million above background or by visual inspections, shall be repaired as soon as practicable. First attempt at repair within 5 calendar days and repair completed within 15 calendar days after the leak is detected. For leaks found in vapor collection systems, repairs shall be completed no later than 15 calendar days after the leak is detected or at the beginning of the next transfer loading operation, whichever is later.
63.148(e)	Delay of repair requirements
63.148(f)	Recordkeeping requirements for bypass lines that could divert a vent stream away from the control device such as installing, calibrating, and maintaining a flow indicator to determine whether vent stream flow is present at least once every 15 minutes. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure the valve is maintained in the closed position and the vent stream is not diverted through the bypass line.
63.148(g), (h)	Exempt requirements for “unsafe to inspect” or “difficult to inspect” parts of the vapor collection system, closed vent system, fixed roof, cover, or enclosure.
63.148(i)	Records of identification of all parts of the vapor collection system, closed vent system, fixed roof, cover, or enclosure for equipment that is unsafe to inspect and difficult to monitor. Keep records for bypass lines that could divert a vent stream away from the control device. Keep records for which a leak is detected and of the visual inspections.

63.148(k)	If a closed-vent system also subject to 40 CFR Part 63.172 of Subpart H, then comply with the provisions of 40 CFR Part 63.172 of Subpart H, and is exempt from the requirements of this section.
63.152 Continuous Records:	
63.152(a)	Keep continuous records of monitored parameters as specified in 63.152(f).
63.152(f)	Requirements for keeping continuous records for transfer operations: (f)(1) – Monitoring system shall measure data values at least once every 15 minutes; (f)(2) – Record the measured data values; (f)(3) – Requirements if the daily average value of a monitored parameter for an operating day is within the range established in the Notification of Compliance Status or operating permit; (f)(4) - Requirements if the daily average value of a monitored parameter for an operating day is outside the range established; (f)(5) – Record the daily average values of each monitored parameter and kept for 5 years; (f)(6) – Recordkeeping requirements if the daily average value of a monitored parameter during an operating day is within the range established and keep records for 5 years; and (f)(7) – Lists monitoring data that is not to be included in the average computed above and the required recordkeeping of this data.
63.152(g)	Recordkeeping requirements if alternatives to the continuous operating parameter monitoring and recordkeeping provisions listed in 63.129 and 63.130 for transfer operations are incorporated.

e) Reporting Requirements

(1) [40 CFR 63, Subpart G] NESHAP FROM THE SYNTHETIC ORGANIC CHEMICL MANUFACTURING INDUSTRY FOR PROCESS VENTS, STORAGE VESSELS, TRANSFER OPERATIONS, AND WASTEWATER

The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 63, Subpart G, including the following sections:

63.130-Transfer Operations Reporting Requirements:	
63.130(d)	Submit semiannual Periodic Reports required for transfer racks according to the schedule in 63.152(e):
63.130(d)(1)	Reports of daily average values of monitored parameters for all operating days when the daily average values were outside the range established in the Notification of Compliance Status or operating permit.
63.130(d)(2)	Reports of the duration of periods when monitoring data are not collected for each excursion caused by insufficient monitoring data as defined in 40 CFR Part 63.152(c)(2)(ii)(A).
63.130(d)(3)	Reports of all times recorded under 40 CFR Part 63.130(b)(2) when maintenance is performed on car-sealed valves, when the car seal is broken, when the by-pass line valve position is changed, or the key for a lock-and-key type configuration has been checked out.
63.130(d)(4)	Reports of all times recorded under 40 CFR Part 63.130(b)(2) when maintenance is performed on car-sealed valves, when the car seal is broken, when the by-pass line valve position is changed, or the key for a lock-and-key type configuration has been checked out.
63.130(d)(5)	Reports of the times and durations of all periods recorded under 40 CFR Part 63.130(a)(2)(i) in which all pilot flames of a flare were absent.
63.130(d)(6)	Reports of all carbon bed regeneration cycles during which the parameters recorded under 40 CFR Part 63.130(a)(2)(ii) were outside the ranges established in the Notification of Compliance Status or operating permit.
63.148 Reporting for Leak Inspections	
63.148(j)	Submit with the reports required by 40 CFR Part 63.152(c), the information specified below:
63.148(j)(1)	The information specified in 40 CFR Part 63.148(i)(4);
63.148(j)(2)	Reports of the times of all periods recorded under 40 CFR Part 63.148(i)(3)(i) when the vent stream is diverted from the control device through a bypass line; and

63.148(j)(3)	Reports of all periods recorded under 40 CFR Part 63.148(i)(3)(ii) in which the seal mechanism is broken, the bypass line valve position has changed, or the key to unlock the bypass line valve was checked out.
63.152 General Reporting Requirements for 40 CFR 63, Subpart G	
63.152(a)	Submit the reports per 63.152(a)(1) through (a)(5), if applicable.
63.152(c)	Submit the Periodic Reports per 63.152(c)(1) through (c)(4):
63.152(c)(1)	Except as specified under (c)(5) and (c)(6), a report containing the information in paragraphs (c)(2), (c)(3) and (c)(4) shall be submitted semiannually.
63.152(c)(2)	Periodic Reports shall include all information specified in 40 CFR Part 63.129 and 63.130 for transfer operations, including reports of periods when monitored parameters are outside their established ranges. See (c)(2)(i) through (c)(2)(iii) for additional information.
63.152(c)(3)	Reporting requirements if any performance tests are reported in a Periodic Report, and should include the information in (c)(3)(i) and (c)(3)(ii).
63.152(c)(4)	Periodic Reports shall include the information in (c)(4)(i) through (c)(4)(iv) of this section, as applicable.
63.152(c)(6)	Submit quarterly reports for particular emission points not included in an emissions average under the circumstances described in paragraphs 63.152(c)(6)(i) through (c)(6)(v).
63.152(d)	Submit reports as specified in Subpart A or in 63.113 through 63.151 of this Subpart, as applicable, see 63.152(d)(1) through (d)(4).
63.152(e)	Submit information or updates as specified in (e)(1) through (e)(4) with the operating permit application or as specified by the permitting authority.

f) Testing Requirements

(1) [40 CFR 63, Subpart G] NESHAP FROM THE SYNTHETIC ORGANIC CHEMICL MANUFACTURING INDUSTRY FOR PROCESS VENTS, STORAGE VESSELS, TRANSFER OPERATIONS, AND WASTEWATER

The permittee shall comply with the applicable testing requirements under in 40 CFR 63 Sub[art G, including the following sections:

63.128-Transfer Operations Test Methods	
.128(a)	A performance test is required for determining compliance with the reduction of total organic HAP emissions in 63.126(b) for all control devices except as specified in 63.128(c). Performance test procedures are described in 63.128(a)(1) through (a)(11)
63.128(c), (c)(4), (c)(5) and (c)(6)	A performance test is not required when any of the following conditions are met: when a vapor balancing system is used; or when emissions are recycled to a chemical manufacturing process unit; or when a transfer rack transfers less than 11.8 million liters per year and the permittee complies with the requirements in 63.128(h) of this section or uses a flare to comply with 63.126(b)(2) of this Subpart.
63.128(f)	Procedures for demonstrating vapor tightness to determine compliance with 63.126(e).

g) Miscellaneous Requirements

(1) None.

17. P016, Ship Loading

Operations, Property and/or Equipment Description:

P016 - Petroleum products, barge loading operation

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-095 issued 5/17/1977)	The PTI requires compliance with the application as submitted at the time the permit was issued. See b)(2)a.

(2) Additional Terms and Conditions

a. The original PTI was issued for benzene loading. If the refinery wants to return the loading rack to benzene service or other HON-regulated material that would cause this emissions unit to become a Group 1 transfer rack, then the facility must install, operate and maintain a control device capable of meeting the requirements of 40 CFR Part 63, subparts F, G and H.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) When loading material, the permittee shall maintain records of each type of material loaded and the vapor pressure of the material loaded.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

18. P017, Wastewater

Operations, Property and/or Equipment Description:

P017 - All wastewater streams and combined sewer systems within the refinery.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-01447 issued 9/29/06 and modified on 1/23/07, 2/23/09 1/14/10, 5/28/10, 1/27/2011 and 1/6/2012 - P0108943)	volatile organic compounds (VOC) emissions shall not exceed 91.19 tons per year See b)(2)a. and (2)b.
b.	40 CFR Part 63, Subpart CC (40 CFR 63.640-656) [In accordance with 40 CFR 63.640(a), this emissions unit is subject to the facility-wide waste-water program at an existing petroleum refinery subject to the emission limitations/control measures specified in this section for Group 1 and Group 2 wastewater streams.]	See b)(2)c. and (2)d.
c.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	See b)(2)e.
d.	40 CFR Part 61, Subpart FF (40 CFR 61.340-358) [In accordance with 61.340(a) and	See b)(2)f.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	61.342(b) this facility is a petroleum refinery at which the total annual benzene quantity from facility waste is equal to or greater than 10 Mg/yr (11 ton/yr) and subject to the emission limitations and control measures specified in this section.]	
Enhanced BWON Program		
e.	OAC rule 3745-31-05(D) (PTI 04-01447 issued 9/29/06 and modified on 1/23/07, 2/23/09 1/14/10, 5/28/10, 1/27/2011 and 1/6/2012 - P0108943)	See b)(2)i. and (2)j.
f.	40 CFR Part 60, Subpart QQQ (40 CFR 60.690-699) [In accordance with 40 CFR 60.690, this emissions unit represents the facility-wide wastewater program at an existing petroleum refinery subject to the emission limitations/control measures specified in this section for Group 2 wastewater streams not subject to 40 CFR 63, Subpart CC.]	See b)(2)d. and (2)k.
Equipment Leaks		
g.	40 CFR Part 63, Subpart CC 40 CFR 63.640-656) [In accordance with 40 CFR 63.640(a), 63.640(c)(4) and 63.641, this emissions unit has an existing facility-wide LDAR program at an existing petroleum refinery subject to the emission limitations and control measures specified in this Subpart.]	In accordance with 40 CFR 63.648(a), each permittee of an existing source shall comply with the provisions of 40 CFR 60, Subpart VV and 63.648(b) except as provided in 63.648(a)(1), (a)(2) and 63.648(c) through (i). Each permittee of a new source shall comply with 40 CFR 63, subpart H except as provided in 63.648(c) through (i). See b)(2)e. and (2)f.
h.	OAC rule 3745-21-09(T)	See b)(2)h.

(2) Additional Terms and Conditions

a. Modifications of the equipment at this facility shall not require a PTI/Title V modification that results solely in increases in VOC emissions until the calculated facility-wide potential to emit (PTE) for fugitive VOC emissions equals or exceeds the allowable fugitive emission limit stated in b)(1) or triggers applicability of a Federal requirement.

b. The permittee shall consider only those fugitive emissions from the equipment being installed or modified (i.e., not the facility-wide fugitive equipment limit) when determining applicability under OAC rule 3745-31-11 through OAC rule 3745-31-20.

c. Pursuant to 40 CFR Part 63.647(a), the permittees of Group 1 wastewater streams shall comply with the requirements of 40 CFR Part 61.340 through 61.355 of 40 CFR Part 61, Subpart FF for each stream that meets the definition for Group 1 wastewater streams as stated in 63.641 (stated below).

A *Group 1 wastewater stream* means a wastewater stream at a petroleum refinery with a total annual benzene loading of 10 megagrams per year or greater as calculated according to the procedures in 40.CFR 61.342 of Subpart FF that has a flow rate of 0.02 liters per minute or greater, a benzene concentration of 10 parts per million by weight or greater, and is not exempt from control requirements under the provisions of 40 CFR Part 61, Subpart FF. A *Group 2 wastewater stream* means a wastewater stream that does not meet the definition of Group 1 wastewater stream.

d. Pursuant to 40 CFR Part 63.640(o), Group 1 wastewater streams managed in a piece of equipment that is also subject to 40 CFR Part 60, Subpart QQQ is required to comply only with the provisions of 40 CFR Part 63, Subpart CC. Also, a Group 1 or Group 2 wastewater stream that is conveyed, stored, or treated in a wastewater stream management unit that also receives streams subject to the provisions of 63.133 through 63.147 of Subpart G wastewater provisions of this part shall comply as specified in 63.640(o)(2)(i) or (o)(2)(ii). Compliance with the requirements of 63.640(o)(2) shall constitute compliance with the requirements of this subpart for that wastewater stream. Group 2 wastewater streams managed in equipment subject to the requirements of 40 CFR 60, Subpart QQQ are required to comply with 40 CFR 60, Subpart QQQ.

e. Table 6 of 40 CFR 63, Subpart CC specifies the provisions of Subpart A that apply and those that do not apply to owners and operators of sources subject to 40 CFR 63, Subpart CC.

f. For each waste stream that contains benzene, including (but not limited to) organic waste streams that contain less than 10 percent water and aqueous waste streams, even if the wastes are not discharged to an individual drain system, the permittee shall:

i. Remove or destroy the benzene contained in the waste using a treatment process or wastewater treatment system that complies with the standards specified in 61.348.

ii. Comply with the standards specified in 61.343 through 61.347 of this subpart for each waste management unit that receives or manages the waste stream prior to and during treatment of the waste stream in accordance with b)(2)f.i.

iii. Each waste management unit used to manage or treat waste streams that will be recycled to a process shall comply with the standards specified in 61.343 through 61.347. Once the waste stream is recycled to a process, including to a tank used for the storage of production process, feed, product, or product intermediates, unless this tank is used primarily for the storage of wastes, the material is no longer subject to b)(2)f.

g. The leak detection and repair requirements of 40 CFR Part 63, Subpart CC and 40 CFR Part 60, Subpart VV applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801

h. The leak detection and repair requirements of OAC rule 3745-21-09(T) applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

i. An enhanced Benzene Waste Operations NESHAP (BWON) program is required by the consent decree as entered on March 14, 2006. The requirements established by the consent decree are as stringent or more stringent than the requirements of 40 CFR 63, Subpart CC and OAC rule 3745-21-09(T).

j. [Consent Decree (CD), section M. and PTI 0106143] - BENZENE WASTE NESHAP PROGRAM ENHANCEMENTS
In addition to continuing to comply with all applicable requirements of 40 CFR Part 61, Subpart FF (the “Benzene Waste Operations NESHAP,” “BWON,” or “Subpart FF”), Toledo Refining Co. (formerly Sunoco) agrees to undertake, at the Covered Refinery, the measures set forth in Section M. of the Consent Decree to ensure enhanced compliance with Subpart FF and to minimize or eliminate fugitive benzene waste emissions. For purposes of this Section (“Benzene Waste NESHAP Program Enhancements”), “Covered Refinery” means the Toledo Refinery.

k. Group 2 wastewater streams managed by affected facilities subject to 40 CFR Part 60, Subpart QQQ shall comply with the requirements of 40 CFR 60, Subpart QQQ as follows:

i. [60.690(a)(1)]
The provisions of this Subpart apply to affected facilities located in petroleum refineries for which construction, modification, or reconstruction commenced after May 4, 1987.

ii. [60.690(a)(2)]
An individual drain system is a separate affected facility. Individual drain system means all process drains connected to the first common downstream junction box. The term includes all such drains and common junction box, together with their associated sewer lines and other junction boxes, down to the receiving oil-water separator.

iii. [60.690(a)(4)]
An aggregate facility is a separate affected facility. Aggregate facility means an individual drain system together with ancillary downstream sewer lines and oil-water separators, down to and including the secondary oil-water separator, as applicable.

c) Operational Restrictions

(1) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES

The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart CC including the following sections:

63.642(k)	The permittee shall comply with the wastewater provisions of 63.647 of Subpart CC.
63.647(a) and (b)	For Group 1 wastewater streams, comply with the requirements of 40 CFR Part 61.340 through 61.355 of 40 CFR 61, Subpart FF. Group 1 and 2 wastewater streams are defined in 40 CFR Part 63.641.
63.647(c)	Requirements for periodic measurement of benzene concentration in wastewater and for operating parameters. Operating outside the permitted limits is a violation of the emission standards. Failure to perform required leak monitoring for closed vent systems and control devices or failure to repair leaks within the time period specified in 40 CFR Part 61, Subpart FF, constitutes a violation of this standard.

(2) [40 CFR 61, Subpart FF] NATIONAL EMISSION STANDARD FOR BENZENE WASTE OPERATIONS

The permittee shall comply with the applicable restrictions required under 40 CFR Part 61, Subpart FF including, but not limited to, the following sections:

61.343(a)	*Standards for Tanks*: The permittee shall install, operate and maintain a fixed roof tank with a closed vent system to route the vapors from the tank to a control device. Covers and all openings shall be designed with no detectable emissions.

61.343(b)	Alternative requirements specified in 63.343(a)for tanks.
61.345(a)	*Standards for Containers*: All containers are to be covered and all openings in a closed, sealed position. Submerged fill pipe is used when waste is transferred into a container by pumping.
61.351	*Alternative Standards for Tanks*: As an alternative, the permittee may elect to comply with the requirements of 60.112b(a)(1), (a)(2) or 60.114b.

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(3) [CD, section M.65. and PTI P0106143] CURRENT COMPLIANCE STATUS
As of Date of Entry of the Consent Decree, Toledo Refining Co.(formerly Sunoco) shall comply with the compliance option set forth at 40 CFR 61.342(c), utilizing the exemptions set forth in 40 CFR 61.342(c)(2) and (c)(3)(ii) (hereinafter referred to as the "2 Mg Compliance Option").

(4) [CD, section M.66. and PTI P0106143] REFINERY COMPLIANCE STATUS CHANGES
Commencing on Date of Entry of the Consent Decree and continuing through the Date of Termination, to the extent applicable, Toledo Refining Co. (formerly Sunoco) shall not change the compliance status of any Covered Refinery from the 6 BQ Compliance Option to the 2 Mg Compliance Option. The Toledo Refining Co. shall consult with the EPA, the appropriate EPA Region, and the appropriate state agency ("Relevant Government Agencies") before making any change in compliance strategy not expressly prohibited by this Paragraph. All changes must be undertaken in accordance with Subpart FF.

d) Monitoring and/or Recordkeeping Requirements

(1) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES

The permittee shall comply with the applicable monitoring and record keeping requirements under 40 CFR Part 63, Subpart CC including the following sections:

63.655(a)	The permittee shall comply with the recordkeeping provisions of 40 CFR 61.356 of Subpart FF unless the permittee is complying with the wastewater provisions in 40 CFR 63.640(o)(2)(ii).

(2) [40 CFR 61, Subpart FF] NATIONAL EMISSION STANDARD FOR BENZENE WASTE OPERATIONS

The permittee shall comply with the applicable monitoring and record keeping requirements under 40 CFR Part 61, Subpart FF including the following sections:

61.343(c) and (d)	*Standards: Tanks*: Quarterly visual inspection requirements for each fixed roof, seal, access door, and all other openings. First effort at repair shall be made as soon as practicable but not later than 45 days after identification.
61.345(a)(1), (b) and (c)	*Standards: Containers*: The containers shall be monitored annually for leaks. Those greater than 500 ppmv above background are considered leaking. Each cover and all openings shall be visually inspected quarterly to ensure closed and gasketed First effort at repair is within 15 days. Visual inspections shall be performed quarterly.
61.346(a) and (b)	*Standards: Individual drain systems*: Drains are to have a cover and closed vent system. Monitored annually; readings greater than 500 ppmv above background are considered leaking. First effort at repair shall be within 15 days. Visual inspections are performed quarterly. Alternatives are listed in 61.346(b)
61.348	Treat waste streams to remove benzene to less than 10 ppmw. *NOTE:* Toledo Refining Co. contracts the treatment of the wastewater to TWO LLC (0448020080). TWO LLC is responsible for the final treatment of the water as defined in 40 CFR Part 61.348.
61.349(a) through (h)	*Standards: Closed vent systems and control devices*: Closed-vent systems and control devices shall be monitored annually for leaks. Readings greater than 500 ppmv above background are considered leaking. First effort at repair is within 15 days. Visual inspections are performed quarterly. Closed vent systems that contain a bypass line that could divert systems away from the control device shall be monitored by a flow indicator or be equipped with a valve secured, closed with a car-seal or lock and key. A vapor recovery system (e.g. a carbon adsorption system or condenser) shall recover or control organic emissions vented to it with an efficiency of 95 weight percent or greater, or shall recover or control the benzene emissions vented to it with an efficiency of 98 weight percent or greater.
61.350(a) and (b)	*Delay of Repair* is allowed if the repair is technically impossible without a partial or complete unit shutdown.

61.351(a) and (b)	*Alternative standards for tanks*.
61.354	*Monitoring of Operations*: 61.354(d) – For carbon adsorption systems that do not regenerate the carbon bed directly on site, either the concentration level of the organic compounds or the concentration level of benzene in the exhaust vent stream from the carbon adsorption system shall be monitored on a regular schedule, and the existing carbon shall be replaced with fresh carbon immediately when carbon breakthrough is indicated. The device shall be monitored on a daily basis or at intervals no greater than 20 percent of the design carbon replacement interval, whichever is greater or follow the alternative stated in 61.354(d). *NOTE*: Toledo Refining Co. contracts the treatment of the wastewater to TWO LLC (0448020080). TWO LLC is responsible for the monitoring of the treatment process and the final treatment of the water as defined in 40 CFR Part 61.354 and 61.348.
61.356(b)	*Recordkeeping Requirements*: Maintain records that identify each waste stream; indicate whether or not the waste stream is controlled for benzene emissions in accordance with this Subpart; and maintain a list of exempt waste streams along with calculations and documentations.
61.356(c)	Requirements for transferring waste off-site for treatment.
61.356(d), (e) and (f)	Maintain engineering design documentation for all control equipment and the closed vent system. Records required for the wastewater treatment system and the design analysis of the carbon adsorption system. Information is retained for the life of the equipment.
61.356(g) and (h)	Maintain records of all visual inspections and the records for all tests of no detectable emissions required by 61.343 through 61.347 and 61.349, along with information regarding repairs.
61.356(j)	Maintain documentation regarding the closed vent system and control device (carbon adsorbers); dates and times when breakthrough is measured, when carbon is replaced. Record times when the above is not operated as designed; startups and shutdown of the units.

(3) [40 CFR 60, Subpart QQQ] STANDARDS OF PERFORMANCE FOR VOC EMISSIONS FROM PETROLEUM REFINERY WASTEWATER SYSTEMS

The permittee shall comply with the applicable monitoring and record keeping requirements under 40 CFR Part 60, Subpart QQQ including the following sections:

60.692-1	*Standards: General*: If subject to this Subpart, the provisions do not apply during periods of startup, shutdown or malfunctions. Compliance with 60.692-1 to 60.629-5, 60.693-1 and 60.693-2 is by review of records, reports and performance tests.
60.692-2(a)	*Standards for Individual Drain Systems*: Standard requirements for drains, junction boxes, sewer lines. Each drain is equipped with water seal controls. Checked by visual or physical inspection monthly. If drain is out of active service, then visual and physical inspections will be weekly for indications of low water levels.
60.692-2(b)	Junction boxes shall be equipped with a cover and may have an open vent pipe at least 90 cm (3 ft) in length and shall not exceed 10.2 cm (4 in) in diameter. Junction box covers shall have a tight seal around the edge and shall be kept in place at all times, except during inspection and maintenance. Visually inspect initially and semiannually thereafter to ensure that the cover is in place and to ensure that the cover has a tight seal around the edge. If a broken seal or gap is identified, first effort at repair shall be made as soon as practicable, but not later than 15 calendar days after the broken seal or gap is identified.
60.692-2(c)	Sewer lines shall not be open to the atmosphere and shall be covered or enclosed in a manner so as to have no visual gaps or cracks in joints, seals, or other emission interfaces. The portion of each unburied sewer line shall be visually inspected initially and semiannually thereafter for indication of cracks, gaps, or other problems that could result in VOC emissions. Whenever cracks, gaps, or other problems are detected, repairs shall be made as soon as practicable, but not later than 15 calendar days after identification, except as provided in §60.692–6.
60.692-2(d)	Except as provided in 60.692-2(e), each modified or reconstructed individual drain system that has a catch basin in the existing configuration prior to May 4, 1987 shall be exempt from the provisions of this section.
60.692-2(e)	Refinery wastewater routed through new process drains and a new first common downstream junction box, either as part of a new individual drain system or an existing individual

	drain system, shall not be routed through a downstream catch basin.
60.692-5(a) and (c)	*Standards for Closed Vent Systems and Control Devices*: Requirements for enclosed combustion devices and flares if used as a control devices.
60.692-5(b), (d) and (e)	Vapor recovery systems are designed to recover VOC emissions with 95% efficiency or greater. Any closed vent systems subject to this Subpart are designed and operated with no detectable emissions (<500 ppm above background), monitored semiannually by methods in 60.696, repairs made within 30 days.
60.692-6(a) and (b)	*Standards: Delay of Repair*: Delay of repair is allowed if the repair is technically impossible without a complete or partial process unit shutdown. Repair must occur before the end of the next refinery/process unit shutdown.
60.692-7(a) and (b)	*Standards: Delay of Compliance*: Delay of compliance of modified drain systems with ancillary downstream components is allowed if compliance cannot be achieved without a refinery/process unit shutdown.
60.693-1(a) through (e); 60.693-2(a) through (d) and 60.694 (a) through (c)	*Alternative standards for individual drain systems and oil-water separators*. Permission to use alternative means of emission limitation.
60.695(a)	*Monitoring of Operations*: Install, maintain and operate the carbon adsorber according to 60.695(a)(3) by monitoring the VOC concentration level in the exhaust gases of the control device outlet gas stream. For systems that do not regenerate the carbon bed directly onsite, the carbon canisters are monitored on a daily basis or at intervals no greater than 20% of the design carbon replacement interval, whichever is greater.
60.695(b)	Where a VOC recovery device other than a carbon adsorber is used to meet the requirements specified in 60.692–5(a), the permittee shall provide to the Administrator information describing the operation of the control device and the process parameter(s) that would indicate proper operation and maintenance of the device. The Administrator may request further information and will specify appropriate monitoring procedures or requirements.
60.695(c)	An alternative operational or process parameter may be monitored if it can be demonstrated that another parameter will ensure that the control device is operated in conformance

	with these standards and the control device's design specifications.
60.697(a) through (d)	*Recordkeeping Requirements*: Recordkeeping requirements for individual drain systems, junction boxes, sewer lines, oil-water separators and closed vent systems.
60.697(e)	Recordkeeping Requirements of repairs if it cannot be corrected without a process unit shutdown.
60.697(f)	Keep copies of all design specifications of the equipment used to comply with this Subpart, kept for the life of the source.
60.697(g)	Keep plans or specifications on the location of out of active service drains with a sealed cap or plug over the drain.
60.697(h)	Keep plans or specs on the stormwater sewer system to demonstrate that no wastewater from any process units or equipment is directly discharged to the stormwater sewer system.
60.697(i)	Recordkeeping requirements for ancillary equipment subject to the exclusion in 60.692–1(d)(2).
60.697(j)	For non-contact cooling water systems subject to this Subpart, keep plans and specs to demonstrate that the cooling water does not contact hydrocarbons or oily wastewater and is not re-circulated through a cooling tower.

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(4) [CD, section M.69. and PTI P0106143] CARBON CANISTERS
Toledo Refining Co. shall comply with the requirements of Paragraph M.69. of the consent decree at the Covered Refinery where any carbon canister system is used as a control device under Subpart FF.

a. Limitations on Use of Single Carbon Canister Systems

i. New Units or Installations. Except as expressly provided by subparagraphs iii and iv below, commencing on Date of Entry of the Consent Decree (March 14, 2006) and continuing through the Date of Termination, Toledo Refining Co. shall not use a single carbon canister system for any new unit or installation that requires control pursuant to Subpart FF at the Covered Refinery.

ii. Existing Units or Installations. Except as expressly provided by subparagraphs iii and iv below, commencing 270 days after Date of Entry of the Consent Decree (December 9, 2006) and continuing through the Date of Termination, Toledo Refining Co. shall not use a single carbon canister system for any existing unit or installation that requires control pursuant to Subpart FF at the Covered Refinery.

iii. Temporary Applications. Toledo Refining Co. may operate a properly-sized single canister system to control benzene emissions from a short-term operation, such as a temporary storage tank. For any canister operated as part of a single canister system, benzene "breakthrough" shall be defined for the purposes of the Consent Decree as any benzene reading above background as measured at the outlet of the canister. Toledo Refining Co. shall monitor for breakthrough from a single carbon canister system at least once every 24 hours. Toledo Refining Co. shall replace any single carbon canister with a fresh carbon canister immediately after a benzene reading above background is detected at the outlet of the canister, unless Toledo Refining Co. chooses to discontinue flow to the carbon canister or route the stream to an alternative control device. For the purpose of this subparagraph, "immediately" shall mean within 24 hours.

iv. Permanent Applications. Toledo Refining Co. may continue to operate a properly-sized single canister system on those applications that exist on the Date of Lodging of this Consent Decree where data over the past five (5) years demonstrate that breakthrough has not occurred in less than six (6) months. Toledo Refining Co. shall monitor for "breakthrough" by monitoring for benzene on a bi-weekly basis at the outlet of the canister. "Breakthrough" shall be defined for the purpose of this Consent Decree as any reading equal to or greater than one (1) ppm benzene. Toledo Refining Co. shall replace any single carbon canister with a fresh carbon canister immediately after breakthrough is detected. For the purpose of this subparagraph, "immediately" shall mean within 24 hours.

b. Installation and Use of Dual Canisters Operated in Series. Except as provided in Paragraph 69.a.iii and a.iv of the consent decree, by no later than 270 days after Date of Entry of the Consent Decree (December 9, 2006), Toledo Refining Co. shall add a secondary carbon canister to each single carbon canister system on an existing unit or installation to convert the single canister system to a dual carbon canister system with the dual canisters operated in series, and shall at each location utilize the dual canister system to control benzene emissions pursuant to Subpart FF. By no later than 30 days following completion of the installation of the dual canisters, for each Refinery, Toledo Refining Co. shall submit a report certifying the completion of the installation. The report shall include a list of all locations within each Refinery where secondary carbon canisters were installed, the installation date of each secondary canister, and the date that each secondary canister was put into operation.

c. Breakthrough Monitoring With Dual Canisters. By no later seven (7) days after the installation of each secondary carbon canister, Toledo Refining Co. shall start to monitor for breakthrough between the primary and secondary carbon canisters at times when there is actual flow to the carbon canister, in accordance with the frequency specified in 40 CFR 61.354(d). At each Covered Refinery, Toledo Refining Co. shall monitor for "breakthrough" by monitoring for benzene. For a dual carbon canister system, "breakthrough" shall be defined for the purpose of this Consent Decree as any reading equal to or greater than 5 ppm benzene measured between the primary and secondary canister. In lieu of replacing the primary canister immediately, Toledo Refining Co. may elect to monitor the secondary canister the day breakthrough between the primary and secondary canister is identified and each calendar day thereafter. This daily monitoring shall continue until the primary canister is replaced. If either benzene or VOC is detected at the outlet of the secondary canister during this period of daily monitoring, the primary canister must be replaced within 24 hours. The original secondary carbon canister will become the new primary carbon canister and a fresh carbon canister will become the secondary canister.

d. Canister Replacement With Dual Canister System. Except as otherwise provided in Paragraph 69.c above, immediately when breakthrough is detected, Toledo Refining Co. shall replace the original primary carbon canister with the secondary canister, and shall use a fresh canister as the new secondary canister. For the purpose of this Paragraph, "immediately" shall mean within 24 hours.

e. Toledo Refining Co. shall maintain a supply of fresh carbon canisters at each the refinery at all times.

f. Records for the requirements of this Paragraph 69 shall be maintained in accordance with 40 CFR 61.356(j)(10).

(5) [CD, section M.70. and PTI P0106143] ANNUAL REVIEW
By no later than 180 days from Date of Entry of the Consent Decree (September 10, 2006), Toledo Refining Co. shall modify (or establish) its existing management of change procedures or shall develop and implement new written procedures to provide for performance of an annual review of process information for each Covered Refinery, including construction projects, to ensure that all new benzene waste streams are included in the Covered Refinery's waste stream inventory. Toledo Refining Co. shall conduct such reviews on an annual basis until the Date of Termination.

(6) [CD, section M.71. and PTI P0106143] LABORATORY AUDITS
Toledo Refining Co. shall conduct audits of all laboratories that perform analyses of Toledo Refining Co.'s Benzene Waste Operations NESHAP samples to ensure that proper analytical and quality assurance/quality control procedures are followed. Toledo Refining Co. may elect to submit the results from laboratory audits conducted by other refineries under the global consent decrees, provided the audits meet Toledo Refining Co.'s audit criteria.

a. Toledo Refining Co. shall complete audits of at least half of the laboratories used by the Covered Refinery within 180 days after Date of Entry of the Consent Decree (September 10, 2006), and shall complete the remaining audits within

365 days after Date of Entry of the Consent Decree (March 14, 2007). In addition, Toledo Refining Co. shall audit any new laboratory used for analyses of benzene samples prior to use of the new laboratory.

b. Until the Date of Termination, Toledo Refining Co. shall conduct subsequent laboratory audits, such that each laboratory is audited every two (2) years.

(7) [CD, section M.72. and PTI P0106143] BENZENE SPILLS
For each spill at the Refinery after Date of Entry of the Consent Decree (March 14, 2006), Toledo Refining Co. shall review the spill to determine if benzene waste, as defined by Subpart FF, was generated. For each spill involving the release of more than 10 pounds of benzene in a 24-hour period, Toledo Refining Co.: (i) shall include benzene waste generated by the spill in the relevant Covered Refinery's TAB, as required by 40 CFR 61.342; and (ii) shall account for such benzene waste in accordance with the applicable compliance option calculations, as appropriate under Subpart FF, unless the benzene waste is properly managed in controlled waste management units at the Refinery.

(8) [CD, section M.73. and PTI P0106143] TRAINING
By no later than 90 days from Date of Entry of the Consent Decree (June 12, 2006), Toledo Refining Co. shall develop and begin implementation of annual (i.e., once each calendar year) training for all employees assigned to draw benzene waste samples at each Covered Refinery.

a. For each Covered Refinery, by no later than 180 days from Date of Entry of the Consent Decree (September 10, 2006), Toledo Refining Co. shall complete the development of standard operating procedures for all control equipment used to comply with the Benzene Waste Operations NESHAP at the Refinery. By no later than 180 days thereafter, Toledo Refining Co. shall complete an initial training program regarding these procedures for all operators assigned to this equipment. Comparable training shall also be provided to any persons who subsequently become operators, prior to their assumption of this duty. Until the Date of Termination, "refresher" training in these procedures shall be performed on a three (3) year cycle.

b. As part of Toledo Refining Co.'s training program, Toledo Refining Co. must require that the employees of any contractors hired to perform the requirements of Section M. of the Consent Decree are properly trained to implement all provisions of this Section at the Refinery.

(9) [CD, section M.74. and PTI P0106143] WASTE/SLOP/OFF-SPEC OIL MANAGEMENT

a. No later than 60 days after Date of Entry (May 13, 2006), Toledo Refining Co. shall submit to EPA, for the Refinery, schematics that: (i) depict the waste management units (including sewers) that handle, store, and transfer waste/slop/off-spec oil streams; (ii) identify the control status of each waste management unit; and (iii) show how such oil is transferred within the Refinery. If requested by EPA, Toledo Refining Co. shall submit to EPA, within 90 days of EPA's request, a set of revised schematics reflecting the characterization of oil

streams and the appropriate control standards. These schematics will be used in preparing the end-of-line sampling plans.

b. Organic Benzene Waste Streams. For the Covered Refinery from Date of Entry of this Consent Decree (March 14, 2006); if and when that Refinery's TAB reaches 10 Mg/yr and a compliance strategy is approved, all waste management units handling "organic" benzene wastes, as defined in Subpart FF, shall meet the applicable control standards of Subpart FF. If controls not already in place are necessary on any waste management unit handling organic benzene wastes, Toledo Refining Co. shall submit to EPA, within 90 days, a written plan and schedule, not to exceed 180 days from the date of EPA approval, for installation and operation of necessary controls. Toledo Refining Co. shall complete the installation and commence operation of the necessary controls in accordance with the EPA-approved plan and schedule.

c. Aqueous Benzene Waste Streams. For purposes of complying with the 2Mg or 6BQ Compliance Option, all waste management units handling aqueous benzene waste streams shall either meet the applicable control standards of Subpart FF or shall have their uncontrolled benzene quantity count toward the 2 or 6 Mg limit.

(10) [CD, section M.75. and PTI P0106143] SAMPLING

a. BWON Sampling Plans: General

i. Requirement to Submit Plan. Toledo Refining Co. shall submit to EPA for approval a separate BWON Sampling Plan designed to determine the benzene quantity in uncontrolled waste streams at the Refinery. Each BWON Sampling Plan shall include the information required in Paragraph 75.b. of the Consent Decree. Upon approval by EPA, Toledo Refining Co. shall implement within the first full Calendar Quarter each EPA-approved BWON Sampling Plan. Delays in the approval of a BWON Sampling Plan for one Refinery shall not constitute grounds for delays in implementing an EPA-approved BWON Sampling Plan for another Refinery.

ii. Timing for Submittal. If, as to the Covered Refinery that is the subject of the proposed BWON Sampling Plan, EPA has not requested Phase Two sampling, then Toledo Refining Co. shall submit to EPA a proposed BWON Sampling Plan for that Covered Refinery by no later than 60 days after the time for EPA to request Phase Two sampling has expired. If, as to the Covered Refinery that is the subject of the proposed BWON Sampling Plan, EPA has requested Phase Two sampling, then Toledo Refining Co. shall submit to EPA a proposed BWON Sampling Plan for that Covered Refinery by no later than 120 days after submitting its Phase Two BWON Compliance Review and Verification Report.

iii. Plan Revisions. If, before the Date of Termination, changes in processes, operations, or other factors lead Toledo Refining Co. or EPA to conclude that the approved sampling locations, approved methods for determining flow calculations, and/or assumed volatilization rates no longer provide an

accurate measure of the Refinery's uncontrolled benzene quantity, Toledo Refining Co. shall submit a revised BWON Sampling Plan to EPA for approval. If, after two (2) years in which Toledo Refining Co. has implemented monthly and quarterly sampling requirements pursuant to an EPA-approved BWON Sampling Plan, Toledo Refining Co. determines that a less stringent sampling plan will provide an accurate determination of a Covered Refinery's uncontrolled benzene quantity, Toledo Refining Co. may request a modification to the EPA-approved BWON Sampling Plan for any Covered Refinery; provided, however, that Toledo Refining Co. may not implement any modifications if EPA disapproves the plan within 90 days of its submission to EPA.

iv. Plan Implementation. Toledo Refining Co. shall commence monthly, quarterly, and annual sampling required under an EPA-approved BWON Sampling Plan in the first full calendar month after Toledo Refining Co. receives EPA's approval of the Plan, and shall continue monthly and quarterly sampling as required by the EPA-approved Plan through the Date of Termination.

b. BWON Sampling Plan Content.
Toledo Refining Co.'s BWON Sampling Plan for the Covered Refinery subject to the 2 Mg Compliance Option shall include: (i) a plan for conducting end-of-line ("EOL") sampling pursuant to Paragraph 75.c of the Consent Decree on a monthly basis (three (3) samples in the quarter, one (1) each month); (ii) a plan for conducting non-EOL sampling pursuant to Paragraph 75.d.ii of the Consent Decree on a quarterly basis; (iii) an identification of all proposed sampling locations; and (iv) a description of the proposed flow calculation method to be used in making quarterly benzene determinations under Paragraph 75.e of the Consent Decree. At the Covered Refinery, EOL sampling means sampling at the last practicable point before the waste stream enters a controlled waste management unit, if, based on engineering judgment, EOL sampling would provide a result different than would be provided at the point of waste generation. EOL sampling is not required once the stream has entered a controlled waste management unit, as long as the waste stream remains controlled until either final discharge or discharge to an activated sludge treatment unit.

c. EOL Sampling. Toledo Refining Co. shall take, and have analyzed, no less than three (3) representative samples from each EOL sampling location identified in an approved BWON Sampling Plan. Toledo Refining Co. shall use the average of these three samples as the benzene concentration for the stream at the approved sampling location. All sampling results under this Paragraph shall be reported to EPA in the reports due under either Section IX of the Consent Decree or pursuant to 40 CFR 61.357.

d. Non-EOL (Point of Generation) Sampling.

i. [CD, section N.75.d.ii. and PTI P0106143] Toledo Refining Co.'s BWON Sampling Plan shall include a plan for sampling: (i) each uncontrolled waste stream that contributes greater than 0.05 Mg benzene per year toward the 2 Mg annual exempt waste total; and (ii) each uncontrolled

waste stream that contains greater than 0.1 Mg benzene per year and that qualifies for the 10 ppmw benzene exemption.

ii. [CD, section N.75.d.iii. and PTI P0106143] Toledo Refining Co. shall conduct all sampling under Paragraph 75.d. of the Consent Decree in compliance with the requirements of 40 CFR 61.355(c)(1) and (3). All sampling results under this Paragraph shall be reported to EPA in the reports due under either Section IX of the Consent Decree or pursuant to 40 CFR 61.357.

e. Calculation of Quarterly and Projected Calendar Year Benzene Quantities. At the end of each Calendar Quarter and based on the EOL sampling results and non-EOL sampling results and the approved flow calculations for the Refinery, Toledo Refining Co. shall calculate a quarterly benzene quantity and shall estimate a projected calendar year benzene quantity for the Refinery. Toledo Refining Co. shall submit the benzene quantity calculations in the reports due under Section IX of the Consent Decree, and explain any anomalies or abnormalities. Toledo Refining Co. may exclude explainable anomalies or abnormalities that are not expected to recur in the calendar year from estimations of the projected benzene quantity.

f. Corrective Measures. Based on the calculations in Paragraph 75.e., Toledo Refining Co. shall determine if the projected calendar year benzene quantity equals or exceeds: 10.0 Megagrams at the Tulsa Refinery; or 2.0 Megagrams (uncontrolled) at the Covered Refinery.

If either of the conditions in Paragraph 75.f. of the Consent Decree exist then, Toledo Refining Co. shall submit for EPA approval a compliance-assurance plan that identifies all corrective actions that Toledo Refining Co. has taken or plans to take to ensure that noncompliance will not occur. If Toledo Refining Co. cannot ensure that noncompliance will not occur, Toledo Refining Co. shall make a statement to that effect in the report required by Paragraph 75.e. of the Consent Decree. Toledo Refining Co. shall submit the compliance-assurance plan by no later than 60 days after the end of the Calendar Quarter in which one or more of the conditions in this Paragraph 75.f. of the Consent Decree are met. Toledo Refining Co. shall implement the compliance assurance plan in accordance with the schedule included in the approved plan. If EPA disapproves the compliance-assurance plan, Toledo Refining Co. shall confer with EPA to develop a mutually acceptable compliance-assurance plan.

g. Third-Party TAB Study and Compliance Review. If, after two (2) consecutive Calendar Quarters it appears likely based on best engineering judgment that, at the end of the calendar year Toledo Refining Co. will not be in compliance with the 2 Mg Option at the Refinery, then, in the third Calendar Quarter, Toledo Refining Co. shall retain a third party contractor to undertake a comprehensive TAB study and compliance review ("Third-Party TAB Study and Compliance Review") at that Refinery. By no later than the last day of the third Calendar Quarter, Toledo Refining Co. shall submit a proposal to EPA that identifies the contractor, the contractor's scope of work, and the contractor's schedule for the Third-Party TAB Study and Compliance Review. Unless, within 30 days after

EPA receives this proposal, EPA disapproves it or seeks modifications, Toledo Refining Co. shall authorize the contractor to commence work, and Toledo Refining Co. shall ensure that the work is completed in accordance with the approved schedule. By no later than 30 days after Toledo Refining Co. receives the results of the Third-Party TAB Study and Compliance Review, Toledo Refining Co. shall submit the results to EPA. After the report is submitted to EPA, Toledo Refining Co. and EPA shall discuss informally the results of the Third-Party TAB Study and Compliance Review. By no later than 90 days after Toledo Refining Co. receives the results of the Third-Party TAB Study and Compliance Review, or at such other time as Toledo Refining Co. and EPA may agree, Toledo Refining Co. shall submit to EPA for approval a plan and schedule for remedying any deficiencies identified in the Third-Party TAB Study and Compliance Review and any deficiencies that EPA brought to Toledo Refining Co.'s attention as a result of the Third-Party TAB Study and Compliance Review. Toledo Refining Co. shall implement the EPA-approved remedial plan in accordance with the schedule included in the approved plan.

(11) [CD, section M.76. and PTI P0106143] MISCELLANEOUS MEASURES

a. Toledo Refining Co., as and to the extent applicable, shall comply with the Benzene Waste Operations NESHAP provisions applicable to groundwater remediation conveyance systems at the Refinery.

b. The provisions of Paragraph 76 of the Consent Decree shall apply to the Refinery as of Date of Entry of the Consent Decree (March 14, 2006). The provisions shall continue to apply until the Date of Termination.

i. Toledo Refining Co. shall conduct monthly visual inspections of all water traps within the Refinery's individual drain systems.

ii. On a weekly basis, visually inspect all conservation vent indicators or other leak or flow indicators on junction boxes or on process sewers for detectable leaks; if necessary, reset any vents where leaks are detected; and record the results of the inspections. After two (2) years of weekly inspections, and based upon an evaluation of the recorded results, Toledo Refining Co. may submit a request to the appropriate EPA Region to modify the frequency of the inspections. Nothing in Paragraph 76 of the Consent Decree shall require Toledo Refining Co. to monitor conservation vents on fixed roof tanks.

iii. On a quarterly basis, Toledo Refining Co. shall conduct monitoring of controlled oil-water separators in accordance with applicable BWON standards.

NOTE: TOLEDO REFINING CO. contracts the treatment of the wastewater to TWO LLC (0448020080). TWO LLC performs the monitoring of the oil-water separators. Toledo Refining Co. is responsible for ensuring that the monitoring is performed according to the Consent Decree.

c. By no later than 60 days after Date of Entry (May 13, 2006) and continuing until Date of Termination, Toledo Refining Co. shall identify and mark all area drains that are segregated stormwater drains.

e) Reporting Requirements

(1) [40 CFR 63, Subpart CC] NESHAP From PETROLEUM REFINERIES

The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 63, Subpart CC, including the following sections:

63.655(a)	Each permittee subject to the wastewater provisions in 40 CFR Part 63.647 shall comply with the reporting provisions in 40 CFR Part 61.357 of 40 CFR Part 61, Subpart FF unless they are complying with the wastewater provisions specified in paragraph (o)(2)(ii) of 40 CFR Part 63. There are no additional reporting requirements for wastewater under this Subpart unless a wastewater stream is included in an emissions average

(2) [40 CFR 61, Subpart FF] NATIONAL EMISSION STANDARD FOR BENZENE WASTE OPERATIONS

The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 61, Subpart FF, including the following sections:

61.357(d)(2)	For facilities with total annual benzene from facility waste equal to or greater than 10 Mg/yr, submit annually a report that updates the waste stream characteristics based on the information submitted as an initial notification in 61.357(a).
61.357(d)(6)	Submit quarterly a report that the equipment necessary to comply with these standards has been certified in accordance with 61.357(d)(1) and that the required inspections were carried out.
61.357(d)(7)	If the total annual benzene quantity from facility waste is equal to or greater than 10 Mg/yr (11 ton/yr), then submit quarterly to the Administrator the applicable reports in 61.357(d).
61.357(d)(8)	Submit annually a report that summarizes all inspections required by 61.342 through 61.354 during which detectable emissions are measured or a problem that resulted in benzene emissions is identified, including information about the repairs and corrective actions.

(3) [40 CFR 60, Subpart QQQ] STANDARDS OF PERFORMANCE FOR VOC EMISSIONS FROM PETROLEUM REFINERY WASTEWATER SYSTEMS

The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 60, Subpart QQQ, including the following sections:

60.698(b)	Submit semiannual certification that all required inspections were carried out in accordance with these standards.
60.698(c)	Submit semiannual reports that summarizes all inspections when a water seal was dry or breached, when drain caps or plugs were missing or when cracks, gaps or other problems were identified that resulted in VOC emissions. Include the repairs and corrective actions.
60.698(d) and (d)(3)	Submit semiannual deviation reports when the carbon in the carbon adsorber (for those not regenerated onsite) was not replaced in a timely manner.
60.698(e)	Notification required under 40 CFR 60.7(a)(4), if compliance with the provisions of 60.692-7 are delayed.

ENHANCED BWON PROGRAM AS REQUIRED BY CONSENT DECREE(CD) - Date of Entry, March 14, 2006

(4) [CD, section M.68. and PTI P0106143] IMPLEMENTATION of ACTIONS NECESSARY to CORRECT NONCOMPLIANCE

a. BWON Corrective Action Plans
Plan Implementation. Toledo Refining Co. shall implement any EPA-approved BWON Corrective Action Plan under Paragraph 68 of the Consent Decree in accordance with the schedule included in the approved Plan.

b. Certification of Compliance with the 2 Mg Compliance Option. By no later than 30 days after completion of the implementation of all actions, if any, required pursuant to Paragraphs 68 or 75.f. of the Consent Decree to come into compliance with the applicable compliance option, Toledo Refining Co. shall submit a report to the Relevant Government Agencies that the Refinery complies with the Benzene Waste Operations NESHAP.

(5) [CD, section M.77. and PTI P0106143] REPORTING REQUIREMENTS of THE CONSENT DECREE

a. Outside of the Reports required under 40 CFR 61.357 and under the progress report procedures of Section IX of the Consent Decree, to the extent required by

the Consent Decree, and at the times specified by Section V.M. of the Consent Decree, Toledo Refining Co. shall submit the following reports to EPA:

i. Amended TAB Report(s), if necessary (Paragraph 67.c);

ii. Any BWON Corrective Action Plans required if the BWON Compliance Review and Verification Reports indicate non-compliance (Paragraph 68.a.i.);

iii. Certification of compliance, if necessary (Paragraph 68.b);

iv. Schematics of waste/slop/off-spec oil movements, as revised, if necessary (Paragraph 74.a);

v. A plan and schedule for installing and operating necessary controls on waste management units handling organic benzene waste, if necessary (Paragraph 74.b);

vi. A plan to quantify uncontrolled waste/slop/off-spec oil movements (Paragraph 75.a.i);

vii. BWON Sampling Plans and revised BWON Sampling Plans, if necessary (Paragraph 75);

viii. A Corrective Measures Plan (Paragraph 75.f);

ix. A proposal for a Third-Party TAB Study and Compliance Review, if necessary (Paragraph 75.g);

x. A Third-Party TAB Study and Compliance Review, if necessary (Paragraph 75.g); and

xi. A plan to implement the results of the Third-Party TAB Study and Compliance Review, if necessary (Paragraph 75.g).

b. As part of either the Reports Required under 40 CFR 61.357 or the progress report procedures of Section IX of the Consent Decree, to the extent required by the Decree, and at the times specified by Section V.M. of the Consent Decree, Toledo Refining Co. shall submit the following reports to EPA:

i. Covered Refinery. In addition to the information submitted in the reports required pursuant to 40 CFR 61.357(d)(6) and (7) ("Section 61.357 Reports"), each Covered Refinery shall include the following information in those reports or in the reports due under Section IX of the Consent Decree:

(a) Laboratory Audits. In the first Section 61.357 Report or first Section IX report due after Toledo Refining Co. has completed the requirements of Paragraph 71.a. of the Consent Decree, Toledo Refining Co. shall identify all laboratory audits that Toledo Refining Co. completed, including, at a minimum, the identification

of each laboratory audited, a description of the methods used in the audit, and the results of the audit. In each subsequent 61.357 Report or Section IX report, Toledo Refining Co. shall identify all laboratory audits that were completed pursuant to the provisions of Paragraph 71.b. of the Consent Decree during the Calendar Quarter, including in each such Report, at a minimum, the identification of each laboratory audited, a description of the methods used in the audit, and the results of the audit;

(b) Training. In the first Section 61.357 Report or Section IX report due after entry of the Consent Decree, Toledo Refining Co. shall describe the measures that it took to comply with the training provisions of Paragraph 73 starting from Date of Entry of the Consent Decree (March 14, 2006) and continuing through the Calendar Quarter for which the first report is due. In each subsequent Section 61.357 Report or Section IX report, Toledo Refining Co. shall describe the measures that Toledo Refining Co. took to comply with the training provisions of Paragraph 73 during the Calendar Quarter;

(c) Sampling Results. Once EOL sampling and non-EOL sampling is required under this Section, Toledo Refining Co. shall report, in each Section 61.357 Report or each Section IX report, the results of the monthly EOL sampling and quarterly non-EOL sampling undertaken pursuant to Paragraph 75. For each Covered Refinery, the report shall include a list of all waste streams sampled, the results of the benzene analysis for each sample, and the computation of the quarterly benzene quantity and the projected calendar year benzene quantity.

f) Testing Requirements

(1) Compliance with the emission limitation(s) of these terms and conditions shall be determined in accordance with the following methods(s):

a. Emission limitation:

VOC emissions from the facility-wide benzene wastewater NESHAP program shall not exceed 91.19 tons per year.

Applicable compliance method:

Compliance for those components subject to 40 CFR Part 61, Subpart FF, shall be demonstrated through the "Test methods, Procedures and Compliance Provisions" of 40 CFR Part 61.355 of Subpart FF.

Compliance for those components subject to 40 CFR Part 60, Subpart QQQ, shall be demonstrated using the fugitive emission factors contained in “VOC Emissions from Petroleum Refinery Wastewater Systems-Background

Information for Proposed Standards", EPA-450/3-85-001a, Feb. 1985, Table 4-1 (drains) and section 3.2.1.6 (junction boxes).

drains, with 50% control (water seal) 0.012 tons VOC/year/drain

junction boxes with 50% control (water seal)0.31 tons VOC/year/box

Multiply the stated emission factor times the number of respective components (in tons VOC per year) and add them to the tons VOC per year determined for those components subject to 40 CFR Part 61, Subpart FF as calculated according to section 61.355.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) [40 CFR 61, Subpart FF] NATIONAL EMISSION STANDARD FOR BENZENE WASTE OPERATIONS

The permittee shall comply with the applicable testing requirements required under 40 CFR 61, Subpart FF including the following sections:

61.342(g)	Compliance will be determined by review of facility records and results from tests and inspections using methods and procedures in 61.355.
61.355(a), (b) and (c)	Use the procedures in 61.355(a) and (b) to determine the annual waste quantity for each waste stream. Use the procedure in 61.355(c) to determine the flow-weighted annual average benzene concentration of each waste stream. Calculate the annual benzene quantity for each waste stream as stated in 61.355(a)(1)(iii).
61.355(h)	Requirements for testing equipment for compliance with no detectable emissions as required in 40 CFR Part 61.343 through 61.347 and 61.349 by using Method 21 of Appendix A.

(3) [40 CFR 60, Subpart QQQ] STANDARDS OF PERFORMANCE FOR VOC EMISSIONS FROM PETROLEUM REFINERY WASTEWATER SYSTEMS

The permittee shall comply with the applicable testing requirements required under 40 CFR 60, Subpart QQQ including the following sections:

60.696(a)	Requirements for inspecting any equipment installed in compliance with this Subpart for potential emissions, defects or other problems before using the equipment.
60.696(b)	Requirements for a source equipped with a closed vent system and control device; use Method 21 to measure for no detectable emissions equal to or less than 500 ppm. The

	instrument is calibrated each day using the calibration gases stated in 60.696(b)(1) and (2).

g) Miscellaneous Requirements

(1) [CD, section XVIII, 245] TERMINATION of the CONSENT DECREE

The Consent Decree shall be subject to termination upon motion by the United States or Sunoco under the conditions identified in Paragraphs 245 through 247 of the Consent Decree. Sunoco may seek termination of the Consent Decree upon either (A) completion and satisfaction at the relevant Refinery of all of the following requirements stated in Paragraphs 245.a-e.; or (B) anytime after the permanent shutdown of, and relinquishment of all operating permits for, such Refinery.

19. P019, Alkylation Feed Hydroisomerization

Operations, Property and/or Equipment Description:

P019 - HPN-IVB unit (converts 1,3-butadiene to isomers of butylene in the alkylation unit)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	40 CFR Part 63, Subpart A	See b)(2)a.
Equipment Leaks		
b.	40 CFR Part 63, Subpart CC [In accordance with 40 CFR 63.640(c)(4) and 63.648(a)(1), this emissions unit has equipment in organic HAP service and is subject to the Refinery MACT LDAR program]	See b)(2)b.
c.	OAC rule 3745-21-09(T)	See b)(2)c.
d.	OAC rule 3745-31-05(A)(3) (PTI 04-255 issued 9/10/1986, superseded by PTI 04-01447 issued 9/29/2006)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(T). See b)(2)d.

(2) Additional Terms and Conditions

a. Refer to Table 6 in the Appendix for 40 CFR Part 63, Subpart CC for terms that may be applicable in 40 CFR Part 63, Subpart A.

b. The leak detection and repair requirements stated in 40 CFR Part 63, subpart CC applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

c. The leak detection and repair requirements of OAC rule 3745-21-09(T) applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

d. The emissions from this source are fugitive and are included in the facility-wide emission limit stated in emissions unit P801 (the facility-wide Leak Detection And Repair (LDAR) program).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

20. P020, Thiolex Unit

Operations, Property and/or Equipment Description:

P020 - Thiolex Unit (removes hydrogen sulfide from C4 hydrocarbons before streams are processed in Alkylation units).

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	40 CFR Part 63, Subpart A	See b)(2)a.
Equipment Leaks		
b.	40 CFR Part 63, Subpart CC [In accordance with 40 CFR 63.640(c)(4) and 63.648(a)(1), this emissions unit has equipment in organic HAP service and is subject to the Refinery MACT LDAR program]	See b)(2)b.
c.	OAC rule 3745-21-09(T)	See b)(2)c.
d.	OAC rule 3745-31-05(A)(3) (PTI 04-255 issued 9/10/1986, superseded by PTI 04-01447 issued 9/29/2006)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(T).

(2) Additional Terms and Conditions

a. Refer to Table 6 in the Appendix for 40 CFR Part 63, Subpart CC for terms that may be applicable in 40 CFR Part 63, Subpart A.

b. The leak detection and repair requirements stated in 40 CFR Part 63, subpart CC applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

c. The leak detection and repair requirements of OAC rule 3745-21-09(T) applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

21. P023, GPU Modernization Project

Operations, Property and/or Equipment Description:

P023 - GPU Modernization project (Gas Processing Unit with a compressor (C-421) in Plant 4

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	40 CFR Part 63, Subpart A	See b)(2)a.
Equipment Leaks		
b.	40 CFR Part 63, Subpart CC [In accordance with 40 CFR 63.640(c)(4) and 63.648(a)(1), this emissions unit has equipment in organic HAP service and is subject to the Refinery MACT LDAR program]	See b)(2)b.
c.	OAC rule 3745-21-09(T)	See b)(2)c.
d.	*NSPS Compressor* 40 CFR Part 60, Subpart GGG	See b)(2)d.
e.	OAC rule 3745-31-05(A)(3) (PTI 04-303 issued 1/7/1987, superseded by PTI 04-01447 issued 9/29/2006)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(T) and 40 CFR Part 60, Subpart GGG.

(2) Additional Terms and Conditions

a. Refer to Table 6 in the Appendix for 40 CFR Part 63, Subpart CC for terms that may be applicable in 40 CFR Part 63, Subpart A.

b. The leak detection and repair requirements stated in 40 CFR Part 63, subpart CC applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

c. The leak detection and repair requirements of OAC rule 3745-21-09(T) applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

d. Pursuant to 40 CFR 63.640(p), this emissions unit is required to comply only with the provisions of 40 CFR Part 63, Subpart CC for equipment leaks.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

22. P024, Merichem Treater

Operations, Property and/or Equipment Description:

P024 - FCC Merichem Treater (gasoline treater in plant 4)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	40 CFR Part 63, Subpart A	See b)(2)a.
Equipment Leaks		
b.	40 CFR Part 63, Subpart CC [In accordance with 40 CFR 63.640(c)(4) and 63.648(a)(1), this emissions unit has equipment in organic HAP service and is subject to the Refinery MACT LDAR program]	See b)(2)b.
c.	OAC rule 3745-21-09(T)	See b)(2)c.
d.	OAC rule 3745-31-05(A)(3) (PTI 04-365 issued 12/10/1986, superseded by PTI 04-01447 issued 9/29/2006)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(T).

(2) Additional Terms and Conditions

a. Refer to Table 6 in the Appendix for 40 CFR Part 63, Subpart CC for terms that may be applicable in 40 CFR Part 63, Subpart A.

b. The leak detection and repair requirements stated in 40 CFR Part 63, subpart CC applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

c. The leak detection and repair requirements of OAC rule 3745-21-09(T) applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

23. P025, Gasoline Blending Facility

Operations, Property and/or Equipment Description:

P025 - Gasoline Blending Facility

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	40 CFR Part 63, Subpart A	See b)(2)a.
Equipment Leaks		
b.	40 CFR Part 63, Subpart CC [In accordance with 40 CFR 63.640(c)(4) and 63.648(a)(1), this emissions unit has equipment in organic HAP service and is subject to the Refinery MACT LDAR program]	See b)(2)b.
c.	OAC rule 3745-21-09(T)	See b)(2)c.
d.	OAC rule 3745-31-05(A)(3) (PTI 04-382 issued 2/25/1987, superseded by PTI 04-01447 issued 9/29/2006)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(T).

(2) Additional Terms and Conditions

a. Refer to Table 6 in the Appendix for 40 CFR Part 63, Subpart CC for terms that may be applicable in 40 CFR Part 63, Subpart A.

b. The leak detection and repair requirements stated in 40 CFR Part 63, subpart CC applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

c. The leak detection and repair requirements of OAC rule 3745-21-09(T) applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

24. P026, Mercaptan Injection System

Operations, Property and/or Equipment Description:

P026 - Ethyl Mercaptan injection system with an absorption fixed media filter

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	40 CFR Part 63, Subpart A	See b)(2)a.
Equipment Leaks		
b.	40 CFR Part 63, Subpart CC [In accordance with 40 CFR 63.640(c)(4) and 63.648(a)(1), this emissions unit has equipment in organic HAP service and is subject to the Refinery MACT LDAR program]	See b)(2)b.
c.	OAC rule 3745-21-09(T)	See b)(2)c.
d.	OAC rule 3745-31-05(A)(3) (PTI 04-415 issued 8/12/1987, superseded by PTI 04-01447 issued 9/29/2006)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(T).

(2) Additional Terms and Conditions

a. Refer to Table 6 in the Appendix for 40 CFR Part 63, Subpart CC for terms that may be applicable in 40 CFR Part 63, Subpart A.

b. The leak detection and repair requirements stated in 40 CFR Part 63, subpart CC applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

c. The leak detection and repair requirements of OAC rule 3745-21-09(T) applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

25. P027, Gasoline Additive Facilities

Operations, Property and/or Equipment Description:

P027 - Gasoline Additives Facilities

h) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

i) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	See b)(2)a.
Equipment Leaks		
b.	40 CFR Part 63, Subpart CC [In accordance with 40 CFR 63.640(c)(4) and 63.648(a)(1), this emissions unit has equipment in organic HAP service and is subject to the Refinery MACT LDAR program]	See b)(2)b.
c.	OAC rule 3745-21-09(T)	See b)(2)c.
d.	OAC rule 3745-31-05(A)(3) (PTI 04-405 issued 9/30/1987, superseded by PTI 04-01447 issued 9/29/2006)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(T).

(2) Additional Terms and Conditions

a. Refer to Table 6 in the Appendix for 40 CFR Part 63, Subpart CC for terms that may be applicable in 40 CFR Part 63, Subpart A.

b. The leak detection and repair requirements stated in 40 CFR Part 63, subpart CC applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

c. The leak detection and repair requirements of OAC rule 3745-21-09(T) applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

j) Operational Restrictions

(1) None.

k) Monitoring and/or Recordkeeping Requirements

(1) None.

l) Reporting Requirements

(1) None.

m) Testing Requirements

(1) None.

n) Miscellaneous Requirements

(1) None.

26. P028, Nonene Production Facility

Operations, Property and/or Equipment Description:

P028 - Nonene Production Facility

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Equipment Leaks		
a.	40 CFR Part 60, Subpart VV [In accordance with 40 CFR 60.480, this emissions unit has equipment as defined in 60.481, within a process unit that is an affected facility and is subject to the LDAR program of 40 CFR 60, subpart VV.]	See b)(2)a.
b.	40 CFR Part 60, Subpart GGG	See b)(2) a. and b)(2)b.
c.	OAC rule 3745-21-09(DD)	See b)(2)c.
d.	OAC rule 3745-31-05(A)(3) (PTI 04-419 issued 12/30/1987, superseded by PTI 04-01447 issued 9/29/2006)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(DD) and 40 CFR Part 60, Subpart GGG.

(2) Additional Terms and Conditions

a. The leak detection and repair requirements stated in 40 CFR Part 60, subpart VV applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

b. Pursuant to 40 CFR 60.592(a), this emissions unit is required to comply only with the provisions of 40 CFR Part 60, Subpart VV for equipment leaks.

c. The requirements of this rule are equivalent to the facility-wide requirements for equipment leaks found in Section C, emissions unit P801, regarding equipment subject to the leak detection and repair program of 40 CFR Part 60, Subpart VV and OAC rule 3745-21-09(T).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

27. P031, 4 & 5 Railcar Loading Rack

Operations, Property and/or Equipment Description:

P031 - 4 & 5 Railcar loading rack for xylene, toluene, nonene and butane - Group 2 transfer rack

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	In accordance with 63.103(a), Table 3 of 40 CFR Part 63, Subpart F provides applicability provisions, definitions, and other general provisions of 40 CFR Part 63, Subpart A that are applicable to this emissions unit. In accordance with 63.103(a), Table 4 of 40 CFR Part 63, Subpart H provides applicability provisions, definitions, and other general provisions of 40 CFR Part 63, Subpart A that are applicable to this emissions unit See b)(2)a.
b.	40 CFR Part 63, Subpart F (40 CFR 63.100-107) [In accordance with 40 CFR 63.100, the provisions of Subparts F, G, and H of this part apply to chemical manufacturing process units that meet all the criteria specified in 63.100(b).]	This Subpart provides applicability provisions, definitions, and other general provisions that are applicable to Subparts G and H. See b)(2)b.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	40 CFR Part 63, Subpart G (40 CFR 63.110-656) [In accordance with 40 CFR 63.110(a), this transfer rack is subject to Subpart G as an existing Group 2 transfer rack as defined in 63.111 as equipment in a source subject to Subpart F of this part.]	See b)(2)c.
d.	40 CFR Part 63, Subpart H (40 CFR 63.160-183) [In accordance with 40 CFR 63.160(a), this emissions unit applies to pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, instrumentation systems, and control devices or closed vent systems required by this Subpart that are intended to operate in organic hazardous air pollutant service 300 hours or more during the calendar year within a source subject to the provisions of a specific Subpart in 40 CFR part 63 that references this Subpart.]	See b)(2)d. and b)(2)e.
e.	OAC rule 3745-21-09(T)	See b)(2)f.
f.	OAC rule 3745-31-05(A)(3) (PTI 04-849 issued 12/8/1993)	23.96 TPY of volatile organic compounds The requirements established pursuant to this rule are equivalent to the requirements of OAC rule 3745-21-09(T).

(2) Additional Terms and Conditions

a. Refer to 40 CFR Part 63, Subparts F, G and H for terms that may be applicable in 40 CFR Part 63, Subpart A.

b. 40 CFR Part 63, Subpart F

i. [63.100(a)] - 40 CFR Part 63, Subpart F
This Subpart provides applicability provisions, definitions, and other general provisions that are applicable to 40 CFR Part 63, Subparts G and H.

ii. [63.100(b)]
Except as provided in paragraphs (b)(4) and (c) of 40 CFR Part 63.100, the provisions of 40 CFR63, Subparts F, G, and H apply to chemical manufacturing process units that meet all of the following criteria:

(a) manufacture as a primary product one or more of the chemicals listed in table 1 of 40 CFR Part 63, Subpart F;

(b) use as a reactant or manufacture as a product, or co-product, one or more of the organic hazardous air pollutants listed in table 2 of 40 CFR Part 63, Subpart F; and

(c) is located at a plant site that is a major source as defined in section 112(a) of the 1990 Clean Air Act.

c. [63.126(c)]
For each Group 2 transfer rack, the permittee shall maintain records as required in 40 CFR Part 63.130(f). No other provisions for transfer racks apply to the Group 2 transfer rack.

d. 40 CFR Part 63, Subpart H

i. [63.160(b)]
Equipment leaks that are also subject to the provisions of 40 CFR parts 60 and 61 are required to comply only with the provisions specified in 40 CFR Part 63, Subpart H.

ii. [63.160(c)]
If a process unit subject to the provisions of this Subpart Has equipment to which this Subpart does not apply, but which is subject to a standard identified in paragraph 2.d.ii.(a), (b), or (c) of this section, the permittee may elect to apply this Subpart to all such equipment in the process unit. If the permittee elects this method of compliance, all VOC in such equipment shall be considered, for purposes of applicability and compliance with this Subpart, as if it were organic hazardous air pollutant (HAP). Compliance with the provisions of this Subpart, in the manner described in this paragraph, shall be deemed to constitute compliance with the standard identified in paragraph 2.d.ii..(a), (b), or (c) of this section.

(a) 40 CFR Part 60, Subpart VV, GGG, or KKK;

(b) 40 CFR Part 61, Subpart F or J; or

(c) 40 CFR Part 264, Subpart BB or 40 CFR Part 265, Subpart BB.

iii. [63.160(d)]
The provisions in 40 CFR Part 63.1(a)(3) of Subpart A do not alter the provisions in paragraph d.ii. of this section.

iv. [63.160(e)]
Except as provided in any Subpart that references Subpart H, lines and equipment not containing process fluids are not subject to the provisions of this Subpart. Utilities, and other non-process lines, such as heating and cooling systems which do not combine their materials with those in the processes they serve, are not considered to be part of a process unit.

v. [63.161]
All terms used in this Subpart shall have the meaning given them in the Clean Air Act as amended in 1990 and in this section, except as provided in any Subpart that references 40 CFR Part 63, Subpart H.

e. Except as otherwise provided, the permittee shall establish a leak detection and repair program for the emissions units identified in paragraph 2.d.i. of this section, in compliance with the operational restrictions, monitoring, record keeping, reporting and testing requirements of 40 CFR 63, Subpart H.

The leak detection and repair requirements of the HON LDAR program in 40 CFR Part 63, Subpart H, applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

f. The leak detection and repair requirements of OAC rule 3745-21-09(T) applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) [63.130(f)]
Each permittee of a Group 1 or Group 2 transfer rack shall record, update annually, and maintain the information specified in 40 CFR Part 63.130 (f)(1) through (f)(3) [see paragraphs a. through c. of this section] in a readily accessible location on site:

a. [63.130(f)(1)]
An analysis demonstrating the design and actual annual throughput of the transfer rack;

b. [63.130(f)(2)]
An analysis documenting the weight-percent organic HAP's in the liquid loaded. Examples of acceptable documentation include but are not limited to analyses of the material and engineering calculations.

c. [63.130(f)(3)]
An analysis documenting the annual rack weighted average HAP partial pressure of the transfer rack.

i. [63.130(f)(3)(i)]
For Group 2 transfer racks that are limited to transfer of organic HAP's with partial pressures less than 10.3 kilopascals, documentation is required of the organic HAP's (by compound) that are transferred. The rack weighted average partial pressure does not need to be calculated.

ii. [63.130(f)(3)(ii)]
For racks transferring one or more organic HAP's with partial pressures greater than 10.3 kilopascals, as well as one or more organic HAP's with partial pressures less than 10.3 kilopascals, a rack weighted partial pressure shall be documented. The rack weighted average HAP partial pressure shall be weighted by the annual throughput of each chemical transferred.

(2) The permittee shall maintain documentation showing whether or not each material loaded is a volatile photochemically reactive material as defined in OAC rule 3745-21-01(C)(7).

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall notify Toledo Environmental Services (TES) in writing if a "volatile photochemically reactive material" [as defined in OAC rule 3745-21-01(C)(7)] is transferred in this emissions unit. The notification shall include a copy of such record and shall be sent to TES within 45 days after such an occurrence.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitation(s) of these terms and conditions shall be determined in accordance with the following methods(s):

Emission limitation:

23.96 tons of VOC per year.

Applicable compliance method:

Compliance shall be demonstrated by the record keeping requirements of d). The emission rate (lbs of VOC per 1,000 gallons) can be calculated using the equation from AP-42, section 5.2 (pg. 5.2-4 (1/95)). Multiply the emission rate (i.e. for toluene, xylene, Nonene and butane) by the respective annual throughput of toluene, xylene and/or Nonene. Add them together and convert to tons per year.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

28. P032, Alkylation Unit Booster Compressor

Operations, Property and/or Equipment Description:

P032 - C-8308 Alkylation Unit Booster Compressor P032 - C-8308 Alkylation Unit Booster Compressor, 18.3 mscfh gas boost compressor

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-860 issued 11/3/93)	negligible emissions
b.	OAC rule 3745-21-09(T)	See b)(2)a.
c.	40 CFR 60, Subpart GGG (40 CFR 60.590-593) [In accordance with 40 CFR 60.590(a), the compressor is an affected facility in a petroleum refinery as defined in 60.591 as equipment subject to Subpart GGG of this part.]	See b)(2)a. and d)(1)
d.	40 CFR 60, Subpart A (40 CFR 60.1-19)	See b)(2)b.

(2) Additional Terms and Conditions

a. The leak detection and repair requirements of 40 CFR Part 60 Subpart GGG and OAC rule 3745-21-09(T) applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

b. 40 CFR 60, Subpart A provides applicability provisions, definitions, and other general provisions that are pertinent to emissions units affected by 40 CFR Part 60.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) [60.592(a)] STANDARDS - 40 CFR 60, Subpart GGG

a. The permittee subject to the provisions of this Subpart shall comply with the requirements of 40 CFR 60.482-1 to 60.482-10 (40 CFR 60, Subpart VV - refer to emissions unit P801).

b. [[60.592(b)]
The permittee may elect to comply with the requirements of 40 CFR 60.483-1 and 60.483-2 (refer to emissions unit P801).

c. [60.592(c)]
The permittee may apply to the Administrator for a determination of equivalency 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 40 CFR 60, Subpart GGG. In doing so, the permittee shall comply with requirements of 40 CFR 60.484 (refer to emissions unit P801).

d. [60.592(d)]
The permittee subject to the provisions of this Subpart (GGG) shall comply with the provisions of 40 CFR 60.485 (refer to emissions unit P801, testing procedures) except as provided in 40 CFR 60.593 (see below).

e. [60.592(e)]
The permittee shall comply with the provisions of 40 CFR 60.486 and 60.487 (refer to emissions unit P801, recordkeeping and reporting).

(2) [60.593] EXEMPTIONS

a. [60.593(a)]
The permittee subject to the provisions of this Subpart may comply with the following exceptions to the provisions of 40 CFR 60, Subpart VV.

b. [60.593(b)]

i. [60.593(b)(1)]
Compressors in hydrogen service are exempt from the requirements of 60.592 if an owner or operator demonstrates that a compressor is in hydrogen service.

ii. [60.593(b)(2)]
Each compressor is presumed not be in hydrogen service unless the permittee demonstrates that the piece of equipment is in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen content can be reasonably expected always to exceed 50 percent by volume. For purposes of determining the percent hydrogen content in the process fluid that is contained in or contacts a compressor, procedures that conform to the general method described in ASTM E-260, E-168, or E-169 (incorporated by reference as specified in 40 CFR 60.17) shall be used.

iii. [60.593(b)(3)

(a) [60.593(b)(3)(i)]

The permittee may use engineering judgment rather than procedures in 60.593(b)(2) of this section to demonstrate that the percent content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume. When the permittee and the Administrator do not agree on whether a piece of equipment is in hydrogen service, however, the procedures in 60.593(b)(2) shall be used to resolve the disagreement.

(b) [60.593(b)(3)(ii)]
If the permittee determines that a piece of equipment is in hydrogen service, the determination can be revised only after following the procedures in 60.593(b)(2).

c. [60.593(c)]
Any existing reciprocating compressor that becomes an affected facility under provisions of 40 CFR 60.14 or 60.15 is exempt from 40 CFR 60.482 (a), (b), (c), (d), (e), and (h) of Subpart VV provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482 (a), (b), (c), (d), (e), and (h) (refer to emissions unit P801).

d. [60.593(d)]
The permittee may use the following provision in addition to 40 CFR 60.485(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150°C as determined by ASTM Method D-86 (incorporated by reference as specified in 40 CFR 60.18).

e) Reporting Requirements

(1) Refer to emissions unit P801 for the applicable equipment leak provisions found under the Reporting Requirements referencing 40 CFR part 60, Subpart VV, if applicable to 40 CFR 60, Subpart GGG.

f) Testing Requirements

(1) Refer to emissions unit P801 for the applicable equipment leak provisions found in the Testing Requirements referencing 40 CFR part 60, Subpart VV, if applicable to 40 CFR 60, Subpart GGG.

g) Miscellaneous Requirements

(1) None.

29. P033, Nonene Truck Loading

Operations, Property and/or Equipment Description:

P033 - truck loading rack for nonene, sulfur and other refinery products

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-21-09(T)	See b)(2)a.
b.	OAC rule 3745-31-05(A)(3) (PTI 04-1038 issued 10/9/1996)	38.04 tpy of volatile organic compounds (VOC) See b)(2)b. and c)(1). The requirements established pursuant to this rule are equivalent to the requirements of OAC 3745-21-09(T) and 40 CFR Part 63, Subparts A and CC.

(2) Additional Terms and Conditions

a. The leak detection and repair requirements of OAC rule 3745-21-09(T) applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

b. The permittee is prohibited from loading material that would be subject to 40 CFR Part 63, Subpart CC in this emissions unit unless the permittee meets the requirements for load racks under section 63.650.

c) Operational Restrictions

(1) The permittee shall use submerged fill whenever this emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain annual records of the following:

a. Nonene throughput, in gallons; and

b. the throughputs of all other petroleum products, in gallons.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall maintain documentation showing whether or not each material loaded is a volatile photochemically reactive material as defined in OAC rule 3745-21-01(C)(7).

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall notify Toledo Environmental Services (TES) in writing if a "volatile photochemically reactive material" [as defined in OAC rule 3745-21-01(C)(7)] is transferred in this emissions unit. The notification shall include a copy of such record and shall be sent to TES within 45 days after such an occurrence.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall notify TES in writing if an “organic hazardous air pollutants (organic HAPS)” is transferred in this emissions unit. The notification shall include a copy of such record and shall be sent to TES within 45 days after such an occurrence.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitation in b)(1) of these terms and conditions shall be determined in accordance with the following method:

a. Emission Limitation:

38.04 tpy of volatile organic compound

Applicable Compliance Method:

Compliance shall be demonstrated by the record keeping requirements of c). The emission factor (in lbs of VOC/1000 gallons) can be calculated using the equation from AP-42, section 5.2 (pg. 5.2-4 (1/95)). Multiply the emission factor (i.e., for nonene or other refinery products) by the respective annual throughput (i.e., for nonene or other refinery products). Add them together and convert to tons per year.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

30. P034, Amine Unit

Operations, Property and/or Equipment Description:

P034 - Amine Unit Reliability Project (treats the amine acid gas fed to the SRU, treats fuel gas and the C3 stream)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	40 CFR Part 63, Subpart CC [In accordance with 40 CFR 63.640(c)(4) and 63.648(a)(1), this emissions unit has equipment in organic HAP service and is subject to the Refinery MACT LDAR program]	See b)(2)a.
b.	40 CFR Part 60, Subpart GGG (40 CFR 60.590-593) [In accordance with 40 CFR 60.590(a), the compressor is an affected facility in a petroleum refinery as defined in 60.591 as equipment subject to Subpart GGG of this part]	See b)(2)b.
c.	OAC rule 3745-21-09(T)	See b)(2)c.
d.	OAC rule 3745-31-05(A)(3) (PTI 04-1199 issued 12/8/1999, superseded by PTI 04-01447 issued 9/29/2006)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(T) and 40 CFR Part 60, Subpart GGG.

(2) Additional Terms and Conditions

a. The leak detection and repair requirements of stated in 40 CFR Part 63, subpart CC applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

b. Pursuant to 40 CFR 60.592, this emissions unit is required to comply with the provisions of 40 CFR Part 60, Subpart VV for equipment leaks.

The leak detection and repair requirements of stated in 40 CFR Part 60, subpart GGG applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

c. The leak detection and repair requirements of OAC rule 3745-21-09(T) applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

31. P035, C-402

Operations, Property and/or Equipment Description:

P035 – 880 BHP, 7.5 mmBtu/hr reciprocating compressor (C-402), two-stroke, rich burned engines, fired by refinery fuel gas and/or natural gas; no controls

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Equipment Leaks		
a.	OAC rule 3745-21-09(T)	See b)(2)a.
Combustion Exhaust		
b.	OAC rule 3745-17-07(A)(1)	See b)(2)b.
c.	OAC rule 3745-17-11(B)(5)(b)	0.062 pound of particulate emissions per million Btu of actual heat input
d.	OAC rule 3745-18-06(G)	0.5 pound of sulfur dioxide (SO_2) per million Btu of actual heat input
e.	40 CFR Part 63, Subpart ZZZZ (40 CFR 63.6580 – 6675)	See b)(2)c.

(2) Additional Terms and Conditions

a. The leak detection and repair requirements of OAC rule 3745-21-09(T) applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

b. Visible particulate emissions from any exhaust stack(s) serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

c. In accordance with 40 CFR Part 63.6585, this unit is subject to this rule but there are no emission limits, monitoring, record keeping or testing requirements for two-stroke, rich burn engines.

c) Operational Restrictions

(1) The permittee shall burn only natural gas and/or refinery fuel gas in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1)]

(2) The quality of the refinery fuel gas burned in this emissions unit shall meet on an "as burned" basis a sulfur content which is sufficient to comply with the allowable SO_2 emission limitation of 0.5 pound of SO_2 per million Btu of actual heat input.

[Authority for term: OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than natural gas and/or refinery fuel gas, the permittee shall maintain a record of the type, quantity, sulfur content in pound(s) of sulfur per mmdscf, and heating value in Btu/dscf of the fuel burned.

[Authority for term: OAC rule 3745-77-07(C)(1)]

RFG SAMPLING AND ANALYSIS AND RECORD KEEPING

(2) REFINERY FUEL GAS SAMPLING:
The permittee shall collect samples of the refinery fuel gas system Monday through Friday (except holidays) for gas chromatographic analysis or other approved analytical method. Each normal sample point shall be collected at least two times per week in accordance with the schedule developed by the permittee. Each sample shall be collected in a sample bag, bomb, cylinder or similar device suitable for the designated analytical method.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall maintain records on the laboratory method used to conduct compositional analysis of the refinery fuel gas. The method shall be reported to Toledo Environmental Services in the periodic report. Any standard ASTM method may be used.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain daily records of the actual heating value of the refinery fuel gas. The actual heating value (H) of the refinery fuel gas shall be calculated from the results of a fuel gas compositional analysis using gas chromatography and the results maintained in units of Btu/scf.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall maintain records of the average H_2S content (in ppmv) for the refinery fuel gas for each 3-hour block of time, and which hydrogen sulfide continuous emissions monitoring system (H_2S CEMS) was used to obtain the data (i.e., from which of the following emissions units: B048, B050, B051).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall maintain daily records of each daily and 30 day average SO_2 emission rate for the refinery fuel gas. The SO_2 emission rate shall be calculated as follows:

ERG = ((14.696)*S*(32)*(1.998))/(H*(10.73)*(520))

Where:

ERG = average SO_2 emission rate, in pounds SO_2 per mmBtu for each 3-hour block of time;

14.696 = standard pressure, psia;

S = daily average H_2S content of refinery fuel gas, ppmv;

32 = molecular weight of sulfur, lb per lb-mole;

1.998 = lb of SO_2 per lb sulfur;

H = daily heat content, Btu/scf (STP at 14.696 psia and 520°R);

10.73 = ideal gas constant, psia-cubic feet/lb-mole ^{o}R);

520 = standard temperature, ^{o}R.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-18-04(F)(3)]

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or refinery fuel gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly deviation (excursion) reports that identify each average SO_2 emission rate (based on 3-hour blocks of time), as calculated in d), that

exceeded the SO_2 emission limitation of 0.5 pound of SO_2 per mmBtu of actual heat input for the burning of refinery fuel gas.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The deviation reports shall be submitted in accordance with the requirements specified in Section A - Standard Terms and Conditions.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) and b)(2) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(1). Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

b. Emission Limitation:

0.062 pound of particulate emissions per million Btu of actual heat input

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 5 of 40 CFR Part 60, Appendix A and the heat content of fuels shall be determined according to ASTM D1826-94. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

c. Emission Limitation:

0.5 pound of SO_2 per million Btu of actual heat input

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring and record keeping requirements of d). If required, compliance shall be demonstrated based upon the methods and procedures of OAC rule 3745-18-04(A). Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

32. P036, C-416

Operations, Property and/or Equipment Description:

P036 - 880 BHP, 7.5 mmBtu/hr reciprocating compressor (C-416), two-stroke, rich burn engines, fired by refinery fuel gas and/or natural gas; no controls

h) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

i) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Equipment Leaks		
a.	OAC rule 3745-21-09(T)	See b)(2)a.
Combustion Exhaust		
b.	OAC rule 3745-17-07(A)(1)	See b)(2)b.
c.	OAC rule 3745-17-11(B)(5)(b)	0.062 pound of particulate emissions per million Btu of actual heat input
d.	OAC rule 3745-18-06(G)	0.5 pound of sulfur dioxide (SO_2) per million Btu of actual heat input
e.	40 CFR Part 63, Subpart ZZZZ (40 CFR 63.6580 – 6675)	See b)(2)c.

(2) Additional Terms and Conditions

a. The leak detection and repair requirements of OAC rule 3745-21-09(T) applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

b. Visible particulate emissions from any exhaust stack(s) serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

c. In accordance with 40 CFR Part 63.6585, this unit is subject to this rule but there are no emission limits, monitoring, record keeping or testing requirements for two-stroke, rich burn engines.

j) Operational Restrictions

(1) The permittee shall burn only natural gas and/or refinery fuel gas in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1)]

(2) The quality of the refinery fuel gas burned in this emissions unit shall meet on an "as burned" basis a sulfur content which is sufficient to comply with the allowable SO_2 emission limitation of 0.5 pound of SO_2 per million Btu of actual heat input.

[Authority for term: OAC rule 3745-77-07(A)(1)]

k) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than natural gas and/or refinery fuel gas, the permittee shall maintain a record of the type, quantity, sulfur content in pound(s) of sulfur per mmdscf, and heating value in Btu/dscf of the fuel burned.

[Authority for term: OAC rule 3745-77-07(C)(1)]

RFG SAMPLING AND ANALYSIS AND RECORD KEEPING

(2) REFINERY FUEL GAS SAMPLING:
The permittee shall collect samples of the refinery fuel gas system Monday through Friday (except holidays) for gas chromatographic analysis or other approved analytical method. Each normal sample point shall be collected at least two times per week in accordance with the schedule developed by the permittee. Each sample shall be collected in a sample bag, bomb, cylinder or similar device suitable for the designated analytical method.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall maintain records on the laboratory method used to conduct compositional analysis of the refinery fuel gas. The method shall be reported to Toledo Environmental Services in the periodic report. Any standard ASTM method may be used.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain daily records of the actual heating value of the refinery fuel gas. The actual heating value (H) of the refinery fuel gas shall be calculated from the results of a fuel gas compositional analysis using gas chromatography and the results maintained in units of Btu/scf.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall maintain records of the average H_2S content (in ppmv) for the refinery fuel gas for each 3-hour block of time, and which hydrogen sulfide continuous emissions monitoring system (H_2S CEMS) was used to obtain the data (i.e., from which of the following emissions units: B048, B050, B051).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall maintain daily records of each daily and 30 day average SO_2 emission rate for the refinery fuel gas. The SO_2 emission rate shall be calculated as follows:

ERG = ((14.696)*S*(32)*(1.998))/(H*(10.73)*(520))

Where:

ERG = average SO_2 emission rate, in pounds SO_2 per mmBtu for each 3-hour block of time;

14.696 = standard pressure, psia;

S = daily average H_2S content of refinery fuel gas, ppmv;

32 = molecular weight of sulfur, lb per lb-mole;

1.998 = lb of SO_2 per lb sulfur:

H = daily heat content, Btu/scf (STP at 14.696 psia and 520°R);

10.73 = ideal gas constant, psia-cubic feet/lb-mole ^{o}R);

520 = standard temperature, ^{o}R.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-18-04(F)(3)]

l) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or refinery fuel gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly deviation (excursion) reports that identify each average SO_2 emission rate (based on 3-hour blocks of time), as calculated in d), that

exceeded the SO_2 emission limitation of 0.5 pound of SO_2 per mmBtu of actual heat input for the burning of refinery fuel gas.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The deviation reports shall be submitted in accordance with the requirements specified in Section A - Standard Terms and Conditions.

[Authority for term: OAC rule 3745-77-07(C)(1)]

m) Testing Requirements

(1) Compliance with the emission limitations in b)(1) and b)(2) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(1). Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

b. Emission Limitation:

0.062 pound of particulate emissions per million Btu of actual heat input

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 5 of 40 CFR Part 60, Appendix A and the heat content of fuels shall be determined according to ASTM D1826-94. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

c. Emission Limitation:

0.5 pound of SO_2 per million Btu of actual heat input

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring and record keeping requirements of d). If required, compliance shall be demonstrated based upon the methods and procedures of OAC rule 3745-18-04(A). Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

n) Miscellaneous Requirements

(1) None.

33. P037, Plant 6-1 Reformer

Operations, Property and/or Equipment Description:

P037 - Plant 6-1 reformer, semi-regenerative type; uses an internal scrubbing system; Plant 4 flare (P009) is used as the control device.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	40 CFR Part 63, Subpart UUU (40 CFR 63.1560-1579) [In accordance with 40 CFR 63.1561(a)(1)(iii), this emissions unit is at an existing refinery and is defined as a catalytic reforming unit (63.1579).]	See b)(2)a.
Equipment Leaks		
b.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	Table 6 of 40 CFR Part 63, Subpart CC "General Provisions Applicability to Subpart CC" provides applicability provisions, definitions, and other general provisions of 40 CFR Part 63, Subpart A that are applicable to this emissions unit. See b)(2)b.
c.	40 CFR Part 63, Subpart CC (40 CFR 63.640-656) [In accordance with 40 CFR 63.640(a), 63.640(c)(4) and 63.641, this emissions unit has an existing facility-wide LDAR program at an	In accordance with 40 CFR 63.648(a), each permittee of an existing source shall comply with the provisions of 40 CFR 60, Subpart VV and 63.648(b) except as provided in 63.648(a)(1), (a)(2) and 63.648(c) through (i). Each permittee of a new source shall comply with 40 CFR 63,

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	existing petroleum refinery subject to the emission limitations and control measures specified in this Subpart.]	subpbart H except as provided in 63.648(c) through (i). See b)(2)c.
d.	OAC rule 3745-21-09(T)	See b)(2)d.

(2) Additional Terms and Conditions

a. The permittee shall comply with the applicable emission limitations specified in 40 CFR Part 63.1566(a)(1) [see Table 15]; 63.1567(a)(1) [see Table 16] and 63.1569(a)(1) [see Table 36].

i. [63.1566(a)(1)(i)]
The permittee can elect to vent emissions of total organic compounds (TOC) to a flare that meets the control device requirements in 40 CFR Part 63.11(b) (Option 1) where visible emissions from a flare must not exceed a total of 5 minutes during any 2-hour operating period; or

ii. [63.1566(a)(1)(ii)]
The permittee can elect to use a control device to meet a TOC percent reduction standard or concentration limit, whichever is less stringent (Option 2).

iii. [63.1567(a)(1); (a)(1)(i) and (a)(a)(ii)]
The permittee must meet each emission limitation in Table 22 that applies to you. If you operate a catalytic reforming unit in which different reactors in the catalytic reforming unit are regenerated in separate regeneration systems, then these emission limitations apply to each separate regeneration system. These emission limitations apply to emissions from catalytic reforming unit process vents associated with the coke burn-off and catalyst rejuvenation operations during coke burn-off and catalyst regeneration. The permittee can choose from the following two options: elect to meet a percent reduction standard for hydrogen chloride (HCl) emissions (Option 1); or elect to meet an HCl concentration limit (Option 2).

iv. [63.1569(a)(1)(i) through (a)(1)(iv)]
The permittee can choose from four options for meeting with the work practice standards for bypass lines:

(a) Elect to install an automated system (Option 1);

(b) Elect to use a manual lock system (Option 2);

(c) Elect to seal the line (Option 3); or

(d) Elect to vent to a control device (Option 4).

v. [63.1569(a)(2)]
As provided in 40 CFR Part 63.6(g), the EPA, may choose to grant the permittee permission to use an alternative to the work practice standard in 40 CFR Part 63.1569(a)(1) of this section.

b. Table 44 of 40 CFR Part 63, Subpart UUU shows which parts of the General Provisions in 40 CFR Part 63.1 through 63.15 applies.

c. The leak detection and repair requirements of stated in 40 CFR Part 63, subpart CC applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

d. The leak detection and repair requirements of OAC rule 3745-21-09(T) applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

c) Operational Restrictions

(1) [40 CFR 63, Subpart UUU] NATIONAL EMISSION STANDARDS FOR HAPS FOR PETROLEUM REFINERIES: CATALYTIC REFORMING UNITS

The permittee shall comply with the applicable restrictions of this Subpart including the following sections:

63.1566 - Requirements for Organic HAP Emissions	
63.1566(a)(2)	Comply with each site-specific operating limit in Table 16, *Toledo Refining Co. choose Option 1*: Vent to a flare that meets the requirements for control devices during catalyst venting and purging operations. The flare pilot light must be present at all time and operated at all times when emissions are vented to it.
63.1566(a)(3)	Except as provided in paragraph 63.155(a)(4), the emission limitations in Tables 15 and 16 apply to emissions from catalytic reforming unit process vents associated with initial catalyst depressuring and catalyst purging operations that occur prior to the coke burn-off cycle. The emission limitations in Tables 15 and 16 of this Subpart do not apply to the coke burn-off, catalyst rejuvenation, reduction or activation vents, or to the control systems used for these vents.
63.1566(a)(4)	The emission limitations in Tables 15 and 16 do not apply to emissions from process vents during depressuring and purging operations when the reactor vent pressure is 5 pounds per square inch gauge (psig) or less.
63.1566(a)(5)	repare an operation, maintenance, and monitoring plan (OMMP) according to the requirements in 63.1574(f) and operate at all

	times according to the procedures in the plan.
63.1567 - Requirements for Inorganic HAP Emissions	
63.1567(a)(2)	*For inorganic HAP emissions*: Meet the operating limit in Table 23 that applies to this emissions unit. These operating limits apply during coke burn-off and catalyst rejuvenation. *Toledo Refining Co. uses an internal scrubbing system. The HCl concentration in the catalyst regenerator exhaust gas must not exceed the limit established during the performance test. (1.04 ppmv db at 3% O_2 for the coke burn and 1.19 ppmv db at 3% O_2 during the oxidation cycle as established on Feb. 15 & 16, 2008)*
63.1567(b)(3)	Establish each site-specific operating limit in Table 23 that applies to this emissions unit according to the procedures in Table 25.

d) Monitoring and/or Recordkeeping Requirements

(1) [40 CFR 63, Subpart UUU] NATIONAL EMISSION STANDARDS FOR HAPS FOR PETROLEUM REFINERIES: CATALYTIC REFORMING UNITS

The permittee shall comply with the applicable monitoring and recordkeeping requirements of this Subpart including the following sections:

63.1566(b)(1)	*Requirements for Organic HAP Emissions*: Operate, and maintain a continuous monitoring system(s) according to the requirements in 40 CFR Part 63.1572 and Table 17.
63.1567 - Requirements for Inorganic HAP Emissions	
63.1567(a)(3)	*Requirements for Inorganic HAP Emissions*: Prepare an operation, maintenance, and monitoring plan according to the requirements in 40 CFR Part 63.1574(f) and operate at all times according to the procedures in the plan.
63.1567(b)(1)	Operate and maintain a continuous monitoring system(s) according to the requirements in 40 CFR Part 63.1572 and Table 24.
63.1569 - Requirements for HAP Emissions from Bypass Lines	
63.1569(a)(2) and (a)(3)	Meet the work practice standards of 63.1569(a)(1) and (a)(2) and prepare an operation, maintenance, and monitoring plan according to the requirements in 40 CFR Part 63.1574(f) and operate at all times according to the procedures in the plan.

63.1570 - General Compliance Requirements	
63.1570(a)	Comply with all of the non-opacity standards in this Subpart during the times specified in 40 CFR Part 63.6(f)(1).
63.1570(b)	Comply with the opacity and visible emission limits in this Subpart during the times specified in 40 CFR Part 63.6(h)(1).
63.1570(c)	Operate and maintain the affected emissions unit, including air pollution control and monitoring equipment, according to the provisions in 40 CFR Part 63.6(e)(1)(i).
63.1570(d),(e),(f) and (g)	Requirements for developing and implementing a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in 40 CFR Part 63.6(e)(3) and operating accordingly.
63.1572 - Monitoring Installation, Operation, and Maintenance Requirements	
63.1572(c)	Monitoring, installation, operation and maintenance requirements for each continuous parameter monitoring system according to the requirements of 63.1572(c)(1) through (c)(5).
63.1572(d)	Monitor and collect data according to the requirements in 63.1572(d)(1) and (d)(2).
63.1573 – Monitoring Alternatives	
63.1573(b)	*APPROVED ALTERNATIVE FOR MONITORING pH LEVELS*: If the permittee uses a wet scrubber to control inorganic HAP emissions from the vent on a catalytic reforming unit, the permittee can measure and record the pH of the water (or scrubbing liquid) exiting the scrubber at least once an hour during coke burn-off and catalyst rejuvenation using pH strips as an alternative to a continuous parameter monitoring system. The pH strips must meet the requirements in Table 41. Or, measure and record the alkalinity of the water (or scrubbing liquid) exiting the wet scrubber or internal scrubbing system at least once an hour during coke burn-off and catalyst rejuvenation using titration as an alternative to a continuous parameter monitoring system.
63.1573(c) through (e)	Requirements if the permittee wants to request approval to use another type of monitoring system or monitor parameters other than those listed in this Subpart.
63.1574(f)	*Operation, Maintenance and Monitoring Plan*: Prepare and implement an operation, maintenance, and

	monitoring plan for each control system and continuous monitoring system. The purpose of this plan is to detail the operation, maintenance, and monitoring procedures that the permittee will follow. Any changes to the plan must be sent to TES for review and approval. Comply with the original plan until the change is approved. The plan must include, at a minimum, the information specified in 63.1574(f)(2)(i) through (x).
63.1576 - Record Keeping Requirements:	
63.1576(a)	Keep a copy of each notification and report that the permittee submitted to comply with this Subpart, including all documentation supporting any initial notification or Notification of Compliance Status that the permittee submitted, according to the requirements in 40 CFR Part 63.10(b)(2)(xiv). The records in 40 CFR Part 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction. Records of performance tests, performance evaluations, and visible emission observations as required in 40 CFR Part 63.10(b)(2)(viii).
63.1576(c)	Keep records in 40 CFR Part 63.6(h) for visible emission observations.
63.1576(d)	Keep the records required by Tables 20, 21, 27 and 28 (for catalytic reforming units) and Table 39 (for bypass lines) to show continuous compliance with each emission limitation that applies to this emissions unit.
63.1576(e)	Keep a current copy of the operation, maintenance, and monitoring plan onsite and available for inspection along with records to show continuous compliance with the procedures in the operation, maintenance, and monitoring plan.
63.1576(f)	Keep the records of any changes that affect emission control system performance including, but not limited to, the location at which the vent stream is introduced into the flame zone for a boiler or process heater
63.1576(g), (h) and (i)	The records must be in a form suitable and readily available for expeditious review according to 40 CFR Part 63.10(b)(1). Keep the records for 5 years of which the first 2 years after

	occurrence must be kept onsite while the other 3 years may be kept offsite.

(2) The permittee must comply with the operation, maintenance and monitoring plan (OMMP) as required by 40 CFR Part 63, Subpart UUU, submitted on May 11, 2005, or any future updates.

e) Reporting Requirements

(1) [40 CFR 63, Subpart UUU] NATIONAL EMISSION STANDARDS FOR HAPS FOR PETROLEUM REFINERIES: CATALYTIC REFORMING UNITS

The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 63, Subpart UUU, including the following sections:

63.1570(f)	*General Compliance Requirements:* Reports regarding deviations of each emission limitations, operating limit, and/or work practice standards that were not met including periods of startup, shutdown, and malfunction. These deviations must be reported according to the requirements in 40 CFR Part 63.1575.
63.1575 - Reports	
63.1575(a)	63.1575(a) Submit each report in Table 43 that applies to this emissions unit.
63.1575(b)	Submit each report by the date in Table 43 and according to the requirements in 40 CFR Part 63.1575(b)(1) through (b)(5).
63.1575(c)	Compliance reports must contain the information in 63.1575(c)(1) through (c)(4).
63.1575(d)	Reports for deviations from emission limitations, work practice standards or where a continuous emission monitoring system is not used to comply with the emission limitation or work practice standard. The compliance report must contain the information in 63.1575(c)(1) through (c)(3) and the information in 63.1575(d)(1) through (d)(3).
63.1575(f)	Information required for compliance reports, if applicable.
63.1575(g)	May submit reports required by other regulations in place of or as part of the compliance report if they contain the required information.

63.1575(h)	The reporting requirements for startups, shutdowns, and malfunctions.

f) Testing Requirements

(1) [40 CFR 63, Subpart UUU] NATIONAL EMISSION STANDARDS FOR HAPS FOR PETROLEUM REFINERIES: CATALYTIC REFORMING UNITS

The permittee shall comply with the applicable testing requirements of this Subpart including the following sections:

63.1566 - Demonstrating Initial and Continuous Compliance for HAP Emissions from Catalytic Reforming Units	
63.1566	After the initial performance test (performed August 19, 2004 and repeated on Dec. 4 & 6, 2007):
63.1566(c)(1)	Demonstrate continuous compliance with each emission limitation in Tables 15 and 16 that applies to this emissions unit according to the methods specified in Tables 20 and 21.
63.1566(c)(2)	Demonstrate continuous compliance with the work practice standards in 40 CFR Part 63.1566(a)(3) by complying with the procedures in your operation, maintenance, and monitoring plan.
63.1567 - Demonstrating Continuous Compliance with the Inorganic HAP Emission Limitations and Work Practice Standards	
63.1567(b)(2)	Conduct each performance test for a catalytic reforming unit according to the requirements in 40 CFR Part 63.1571 and the conditions specified in Table 25. 63.1567(c)(1) Demonstrate continuous compliance with each emission limitation in Tables 22 and 23 (see above and the HCl concentration in the catalyst regenerator exhaust gas must not exceed the limit established during the performance test) that applies to this emissions unit according to the methods specified in Tables 27 and 28 (maintain an internal scrubbing system and measure and record the concentration of HCl every 4 hours using a colorimetric tube sampling system; and maintaining the HCl concentration below the applicable operating limit). 63.1567(c)(2) Demonstrate continuous compliance with the work practice standard in 40 CFR Part 63.1567(a)(3) by maintaining records to document conformance with the procedures in the operation, maintenance and monitoring plan.

63.1567(b)(5)	The permittee demonstrated initial compliance with each applicable emission limitation that applies according to Table 26 - reduce uncontrolled emissions of HCl by 92 percent by weight using a control device or to a concentration of 30 ppmv db, corrected to 3% oxygen.
63.1567(c)(1)	Demonstrate continuous compliance with each emission limitation in Tables 22 and 23 (see above and the HCl concentration in the catalyst regenerator exhaust gas must not exceed the limit established during the performance test) that applies to this emissions unit according to the methods specified in Tables 27 and 28 (maintain an internal scrubbing system and measure and record the concentration of HCl every 4 hours using a colorimetric tube sampling system; and maintaining the HCl concentration below the applicable operating limit).
63.1567(c)(2)	Demonstrate continuous compliance with the work practice standard in 40 CFR Part 63.1567(a)(3) by maintaining records to document conformance with the procedures in the operation, maintenance and monitoring plan.
63.1569 - Demonstrating Continuous Compliance for HAP Emissions from Bypass Lines	
63.1569(c)	Demonstrate continuous compliance with each work practice standard in Table 36 (vent the bypass line to a control device [flare] that meets the appropriate requirements in this Subpart) that applies according to the requirements in Table 39 (monitor the device according to appropriate Subpart requirements [continuously monitor flare tip temperature]; also record and report the time and duration of any bypass.
63.1571 – Performance Tests	
63.1571(b)	*General Requirements for Performance Tests and Performance Evaluations*
63.1571(c)	*Engineering Assessment* Requirements and procedures to use if an engineering assessment is used to calculate the process vent flow rate, net heating value, TOC emission rate, and total organic HAP emission rate expected to yield the highest daily emission rate when determining the emission reduction or outlet concentration for the organic HAP standard for catalytic reforming units
63.1571(d)	*Adjusting the Process or Control Device Measured Values When Establishing an Operating Limit* If a performance test is done to demonstrate compliance, then

	base the process or control device operating limits for continuous parameter monitoring systems on the results measured during the performance test.
63.1571(d)(4)	Requirments for continuous parameter monitoring systems if the parameters need to be adjusted.
63.1571(e)	The permittee may change the established operating limit by meeting the requirements in 63.1571(e)(1) through (3).

g) Miscellaneous Requirements

(1) The following tables from 40 CFR Part 63, Subpart UUU apply to this emissions unit:

Tables 15; 16; 17; 18 ; 19; 20; 21; 22; 23; 24; 25; 26; 27; 28; 36; 37; 38; 39; 41; 42; 43 and 44.

34. P038, Plant 9-3 Reformer

Operations, Property and/or Equipment Description:

P038 - Plant 9-3 reformer, semi-regenerative type; uses an internal scrubbing system; Plant 9 flare (P008) is used as the control device.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	40 CFR Part 63, Subpart UUU (40 CFR 63.1560-1579) [In accordance with 40 CFR 63.1561(a)(1)(iii), this emissions unit is at an existing refinery and is defined as a catalytic reforming unit (63.1579).]	See b)(2)a.
Equipment Leaks		
b.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	Table 6 of 40 CFR Part 63, Subpart CC "General Provisions Applicability to Subpart CC" provides applicability provisions, definitions, and other general provisions of 40 CFR Part 63, Subpart A that are applicable to this emissions unit. See b)(2)b.
c.	40 CFR Part 63, Subpart CC (40 CFR 63.640-656) [In accordance with 40 CFR 63.640(a), 63.640(c)(4) and 63.641, this emissions unit has an existing facility-wide LDAR program at an	In accordance with 40 CFR 63.648(a), each permittee of an existing source shall comply with the provisions of 40 CFR 60, Subpart VV and 63.648(b) except as provided in 63.648(a)(1), (a)(2) and 63.648(c) through (i). Each permittee of a new source shall comply with 40 CFR 63,

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	existing petroleum refinery subject to the emission limitations and control measures specified in this Subpart.]	subpart H except as provided in 63.648(c) through (i). See b)(2)c.
d.	OAC rule 3745-21-09(T)	See b)(2)d.

(2) Additional Terms and Conditions

a. The permittee shall comply with the applicable emission limitations specified in 40 CFR Part 63.1566(a)(1) [see Table 15]; 63.1567(a)(1) [see Table 16] and 63.1569(a)(1) [see Table 36].

i. [63.1566(a)(1)(i)]
The permittee can elect to vent emissions of total organic compounds (TOC) to a flare that meets the control device requirements in 40 CFR Part 63.11(b) (Option 1) where visible emissions from a flare must not exceed a total of 5 minutes during any 2-hour operating period; or

ii. [63.1566(a)(1)(ii)]
The permittee can elect to use a control device to meet a TOC percent reduction standard or concentration limit, whichever is less stringent (Option 2).

iii. [63.1567(a)(1); (a)(1)(i) and (a)(a)(ii)]
The permittee must meet each emission limitation in Table 22 that applies to you. If you operate a catalytic reforming unit in which different reactors in the catalytic reforming unit are regenerated in separate regeneration systems, then these emission limitations apply to each separate regeneration system. These emission limitations apply to emissions from catalytic reforming unit process vents associated with the coke burn-off and catalyst rejuvenation operations during coke burn-off and catalyst regeneration. The permittee can choose from the following two options: elect to meet a percent reduction standard for hydrogen chloride (HCl) emissions (Option 1); or elect to meet an HCl concentration limit (Option 2).

iv. [63.1569(a)(1)(i) through (a)(1)(iv)]
The permittee can choose from four options for meeting with the work practice standards for bypass lines:

(a) Elect to install an automated system (Option 1);

(b) Elect to use a manual lock system (Option 2);

(c) Elect to seal the line (Option 3); or

(d) Elect to vent to a control device (Option 4).

v. [63.1569(a)(2)]
As provided in 40 CFR Part 63.6(g), the EPA, may choose to grant the permittee permission to use an alternative to the work practice standard in 40 CFR Part 63.1569(a)(1) of this section.

b. Table 44 of 40 CFR Part 63, Subpart UUU shows which parts of the General Provisions in 40 CFR Part 63.1 through 63.15 apply.

c. The leak detection and repair requirements of stated in 40 CFR Part 63, subpart CC applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

d. The leak detection and repair requirements of OAC rule 3745-21-09(T) applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

c) Operational Restrictions

(1) [40 CFR 63, Subpart UUU] NATIONAL EMISSION STANDARDS FOR HAPS FOR PETROLEUM REFINERIES: CATALYTIC REFORMING UNITS

The permittee shall comply with the applicable restrictions of this Subpart including the following sections:

63.1566 – Requirements for Organic HAP Emissions	
63.1566(a)(2)	Comply with each site-specific operating limit in Table 16, *Toledo Refining Co. choose Option 1*: Vent to a flare that meets the requirements for control devices during catalyst venting and purging operations. The flare pilot light must be present at all time and operated at all times when emissions are vented to it.
63.1566(a)(3)	Except as provided in paragraph 63.155(a)(4), the emission limitations in Tables 15 and 16 of this Subpart apply to emissions from catalytic reforming unit process vents associated with initial catalyst depressuring and catalyst purging operations that occur prior to the coke burn-off cycle. The emission limitations in Tables 15 and 16 of this Subpart do not apply to the coke burn-off, catalyst rejuvenation, reduction or activation vents, or to the control systems used for these vents
63.1566(a)(4)	The emission limitations in Tables 15 and 16 do not apply to emissions from process vents during depressuring and purging operations when the reactor vent pressure is 5 pounds per square inch gauge (psig) or less

63.1566(a)(5)	Prepare an operation, maintenance, and monitoring plan (OMMP) according to the requirements in 63.1574(f) and operate at all times according to the procedures in the plan
63.1567 – Requirements for Inorganic HAP Emissions	
63.1567(a)(2)	Meet each site-specific operating limit in Table 23 that applies to this emissions unit. These operating limits apply during coke burn-off and catalyst rejuvenation. *Toledo Refining Co. uses an internal scrubbing system. The HCl concentration in the catalyst regenerator exhaust gas must not exceed the limit established during the performance test. (0.46 ppmv db at 3% O_2 for the coke burn and 0.09 ppmv db at 3% O_2 during the oxidation cycle as established on Dec. 4 & 6, 2007)*
63.1567(b)(3)	Establish each site-specific operating limit in Table 23 that applies to this emissions unit according to the procedures in Table 25.

d) Monitoring and/or Recordkeeping Requirements

(1) [40 CFR 63, Subpart UUU] NATIONAL EMISSION STANDARDS FOR HAPS FOR PETROLEUM REFINERIES: CATALYTIC REFORMING UNITS

The permittee shall comply with the applicable monitoring and recordkeeping requirements of this Subpart including the following sections:

63.1566 – Requirements for Organic HAP Emissions	
63.1566(b)(1)	Operate, and maintain a continuous monitoring system(s) according to the requirements in 40 CFR Part 63.1572 and Table 17.
63.1567 – Requirements for Inorganic HAP Emissions	
63.1567(a)(3)	*Requirements for Inorganic HAP Emissions*: Prepare an operation, maintenance, and monitoring plan according to the requirements in 40 CFR Part 63.1574(f) and operate at all times according to the procedures in the plan.
63.1567(b)(1)	Operate and maintain a continuous monitoring system(s) according to the requirements in 40 CFR Part 63.1572 and Table 24.

63.1569 - Requirements for HAP Emissions from Bypass Lines:	
63.1569(a)(2) and (a)(3)	Meet the work practice standards of 63.1569(a)(1) and (a)(2) and prepare an operation, maintenance, and monitoring plan according to the requirements in 40 CFR Part 63.1574(f) and operate at all times according to the procedures in the plan.
63.1570 – General Compliance Requirements	
63.1570(a)	Comply with all of the non-opacity standards in this Subpart during the times specified in 40 CFR Part 63.6(f)(1).
63.1570(b)	Comply with the opacity and visible emission limits in this Subpart during the times specified in 40 CFR Part 63.6(h)(1).
63.1570(c)	Operate and maintain the affected emissions unit, including air pollution control and monitoring equipment, according to the provisions in 40 CFR Part 63.6(e)(1)(i).
63.1570(d),(e),(f) and (g)	Requirements for developing and implementing a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in 40 CFR Part 63.6(e)(3) and operating accordingly.
63.1572 - Monitoring Installation, Operation, and Maintenance Requirements	
63.1572(c)	Monitoring, installation, operation and maintenance requirements for each continuous parameter monitoring system according to the requirements of 63.1572(c)(1) through (c)(5).
63.1572(d)	Monitor and collect data according to the requirements in 63.1572(d)(1) and (d)(2).
63.1573 – Monitoring Alternatives	
63.1573(b)	*APPROVED ALTERNATIVE FOR MONITORING pH LEVELS*: If the permittee uses a wet scrubber to control inorganic HAP emissions from the vent on a catalytic reforming unit, the permittee can measure and record the pH of the water (or scrubbing liquid) exiting the scrubber at least once an hour during coke burn-off and catalyst rejuvenation using pH strips as an alternative to a continuous parameter monitoring system. The pH strips must meet the requirements in Table 41. Or, measure and record the alkalinity of the water (or scrubbing liquid) exiting the wet scrubber or internal scrubbing system at least once an hour during coke burn-off and catalyst

	rejuvenation using titration as an alternative to a continuous parameter monitoring system.
63.1573(c) through (e)	Requirements if the permittee wants to request approval to use another type of monitoring system or monitor parameters other than those listed in this Subpart.
63.1574(f)	*Operation, Maintenance and Monitoring Plan*: Prepare and implement an operation, maintenance, and monitoring plan for each control system and continuous monitoring system. The purpose of this plan is to detail the operation, maintenance, and monitoring procedures that the permittee will follow. Any changes to the plan must be sent to TES for review and approval. Comply with the original plan until the change is approved. The plan must include, at a minimum, the information specified in 63.1574(f)(2)(i) through (x).
63.1576 – Record Keeping Requirements	
63.1576(a)	Keep a copy of each notification and report that the permittee submitted to comply with this Subpart, including all documentation supporting any initial notification or Notification of Compliance Status that the permittee submitted, according to the requirements in 40 CFR Part 63.10(b)(2)(xiv). The records in 40 CFR Part 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction. Records of performance tests, performance evaluations, and visible emission observations as required in 40 CFR Part 63.10(b)(2)(viii).
63.1576(c)	Keep records in 40 CFR Part 63.6(h) for visible emission observations.
63.1576(d)	Keep the records required by Tables 20, 21, 27 and 28 (for catalytic reforming units) and Table 39 (for bypass lines) to show continuous compliance with each emission limitation that applies to this emissions unit.
63.1576(e)	Keep a current copy of the operation, maintenance, and monitoring plan onsite and available for inspection along with records to show continuous compliance with the procedures in the operation, maintenance, and monitoring plan.

63.1576(f)	Keep the records of any changes that affect emission control system performance including, but not limited to, the location at which the vent stream is introduced into the flame zone for a boiler or process heater.
63.1576(g), (h) and (i)	The records must be in a form suitable and readily available for expeditious review according to 40 CFR Part 63.10(b)(1). Keep the records for 5 years of which the first 2 years after occurrence must be kept onsite while the other 3 years may be kept offsite.

(2) The permittee must comply with the operation, maintenance and monitoring plan (OMMP) as required by 40 CFR Part 63, Subpart UUU, submitted on May 11, 2005, or any future updates.

e) Reporting Requirements

(1) [40 CFR 63, Subpart UUU] NATIONAL EMISSION STANDARDS FOR HAPS FOR PETROLEUM REFINERIES: CATALYTIC REFORMING UNITS

The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 63, Subpart UUU, including the following sections:

63.1570 – General Compliance Requirements	
63.1570(f)	Reports regarding deviations of each emission limitations, operating limit and/or work practice standards that were not met including periods of startup, shutdown, and malfunction. These deviations must be reported according to the requirements in 40 CFR Part 63.1575.
63.1575 - Reports	
63.1575(a)	Submit each report in Table 43 that applies to this emissions unit.
63.1575(b)	Submit each report by the date in Table 43 and according to the requirements in 40 CFR Part 63.1575(b)(1) through (b)(5).
63.1575(c)	Compliance reports must contain the information in 63.1575(c)(1) through (c)(4).
63.1575(d)	Reports for deviations from emission limitations, work practice standards or where a continuous emission monitoring system is not used to comply with the emission limitation or work practice standard. The compliance report must contain the

	information in 63.1575(c)(1) through (c)(3) and the information in 63.1575(d)(1) through (d)(3).
63.1575(f)	Information required for compliance reports, if applicable.
63.1575(g)	May submit reports required by other regulations in place of or as part of the compliance report if they contain the required information.
63.1575(h)	The reporting requirements for startups, shutdowns, and malfunctions.

f) Testing Requirements

(1) [40 CFR 63, Subpart UUU] NATIONAL EMISSION STANDARDS FOR HAPS FOR PETROLEUM REFINERIES: CATALYTIC REFORMING UNITS

The permittee shall comply with the applicable testing requirements of this Subpart including the following sections:

63.1566 - Demonstrating Initial and Continuous Compliance for HAP Emissions from Catalytic Reforming Units	
63.1566	*Demonstrating Initial and Continuous Compliance for HAP Emissions from Catalytic Reforming Units*: After the initial performance test (performed August 19, 2004 and repeated on Dec. 4 & 6, 2007):
63.1566(c)(1)	Demonstrate continuous compliance with each emission limitation in Tables 15 and 16 that applies to this emissions unit according to the methods specified in Tables 20 and 21.
63.1566(c)(2)	63.1566(c)(2) Demonstrate continuous compliance with the work practice standards in 40 CFR Part 63.1566(a)(3) by complying with the procedures in your operation, maintenance, and monitoring plan.
63.1567 - Demonstrating Continuous Compliance with the Inorganic HAP Emission Limitations and Work Practice Standards	
63.1567	Conduct each performance test according to the requirements in 40 CFR Part 63.1571 and the conditions specified in Table 25.
63.1567(b)(5)	The permittee demonstrated initial compliance with each applicable emission limitation that applies according to Table 26 - reduce uncontrolled emissions of HCl by 92 percent by

	weight using a control device or to a concentration of 30 ppmv db, corrected to 3% oxygen.
63.1567(c)(1)	Demonstrate continuous compliance with each emission limitation in Tables 22 and 23 (see above and the HCl concentration in the catalyst regenerator exhaust gas must not exceed the limit established during the performance test) that applies to this emissions unit according to the methods specified in Tables 27 and 28 (maintain an internal scrubbing system and measure and record the concentration of HCl every 4 hours using a colorimetric tube sampling system; and maintaining the HCl concentration below the applicable operating limit).
63.1567(c)(2)	Demonstrate continuous compliance with the work practice standard in 40 CFR Part 63.1567(a)(3) by maintaining records to document conformance with the procedures in the operation, maintenance and monitoring plan.
63.1569 - Demonstrating Continuous Compliance for HAP Emissions from Bypass Lines	
63.1569(c)	63.1569(c)(1) Demonstrate continuous compliance with each work practice standard in Table 36 (vent the bypass line to a control device [flare] that meets the appropriate requirements in this Subpart) that applies according to the requirements in Table 39 (monitor the device according to appropriate Subpart requirements [continuously monitor flare tip temperature]; also record and report the time and duration of any bypass).
63.1571 – Performance Tests	
63.1571(b)	*General Requirements for Performance Tests and Performance Evaluations*
63.1571(c)	*Engineering Assessment* Requirements and procedures to use if an engineering assessment is used to calculate the process vent flow rate, net heating value, TOC emission rate, and total organic HAP emission rate expected to yield the highest daily emission rate when determining the emission reduction or outlet concentration for the organic HAP standard for catalytic reforming units.
63.1571(d)	*Adjusting the Process or Control Device Measured Values When Establishing an Operating Limit* If a performance test is done to demonstrate compliance, then base the process or control device operating limits for

	continuous parameter monitoring systems on the results measured during the performance test.
63.1571(d)(4)	Requirements for continuous parameter monitoring systems if the parameters need to be adjusted.
63.1571(e)	The permittee may change the established operating limit by meeting the requirements in 63.1571(e)(1) through (3).

g) Miscellaneous Requirements

(1) The following tables from 40 CFR Part 63, Subpart UUU apply to this emissions unit:

Tables 15; 16; 17; 18 ; 19; 20; 21; 22; 23; 24; 25; 26; 27; 28; 36; 37; 38; 39; 41; 42; 43 and 44.

35. P039, Plant 9-5 LSG Unit

Operations, Property and/or Equipment Description:

P039 – Desulfurized gasoline blending components with an existing flare used as control during process upsets, and comprised of the following emissions sources: equipment leaks, controlled by equipment design, operating and maintenance programs; and wastewater, controlled by equipment design and operating and maintenance programs.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Equipment Leaks		
a.	OAC rule 3745-31-05(A)(3) (PTI 04-01319 issued 7/10/03)	4.41 tons per year of volatile organic compounds (VOC), and See b)(2)a. and b)(2)k.
b.	OAC rule 3745-21-09(T)	See b)(2)b.
c.	40 CFR Part 60, Subpart A (40 CFR 60.1-19)	See b)(2)c.
d.	40 CFR Part 60, Subpart GGG (40 CFR 60.590-593) [In accordance with 40 CFR 60.590(a)(3), the group of all the equipment (defined in 60.591) within a process unit is an affected facility in a petroleum refinery.]	See b)(2)d.
e.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	Table 6 of 40 CFR Part 63, Subpart CC "General Provisions Applicability to Subpart CC" provides applicability provisions, definitions, and other general

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		provisions of 40 CFR Part 63, Subpart A that are applicable to this emissions unit. See b)(2)e.
f.	40 CFR Part 63, Subpart CC (40 CFR 63.640-656) [In accordance with 40 CFR 63.640(a), 63.640(c)(4) and 63.641, this emissions unit has an existing facility-wide LDAR program at an existing petroleum refinery subject to the emission limitations and control measures specified in this Subpart.]	In accordance with 40 CFR 63.648(a), each permittee of an existing source shall comply with the provisions of 40 CFR 60, Subpart VV and 63.648(b) except as provided in 63.648(a)(1), (a)(2) and 63.648(c) through (i). Each permittee of a new source shall comply with 40 CFR 63, subpart H except as provided in 63.648(c) through (i). See b)(2)f.
Wastewater		
g.	OAC rule 3745-31-05(A)(3) (PTI 04-01319 issued 7/10/03)	1.55 tons per year of VOC, and See b)(2)g. and b)(2)k.
h.	40 CFR Part 60, Subpart A (40 CFR 60.1-19)	See b)(2)c.
i.	40 CFR Part 60, Subpart QQQ (40 CFR 60.690-699) [In accordance with 40 CFR 60.690, this applies to affected facilities located in petroleum refineries. The individual drain system is a separate affected facility and is subject to this regulation.]	See b)(2)h.
j.	40 CFR Part 61, Subpart A (40 CFR 63.1-19)	See b)(2)i.
k.	40 CFR Part 61, Subpart FF (40 CFR 61.340-358) [In accordance with 40 CFR 63.647(a), this emissions unit is subject to the facility-wide waste-	See b)(2)j.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	water program (EU P017) at an existing petroleum refinery subject to the emission limitations/control measures specified in this section for Group 1 and Group 2 wastewater streams.]	
l.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	See b)(2)e. and b)(2)f.
m.	40 CFR Part 63, Subpart CC (40 CFR 63.640-656) [In accordance with 40 CFR 63.640(a) and 63.647(a), this emissions unit is subject to the facility-wide waste-water program (EU P017) at an existing petroleum refinery subject to the emission limitations/control measures specified in this section for Group 1 wastewater streams as defined by 63.641.]	Pursuant to 40 CFR Part 63.647(a), the permittees of Group 1 wastewater streams shall comply with the requirements of 40 CFR Part 61.340 through 61.355 of 40 CFR Part 61, Subpart FF for each stream that meets the definition for Group 1 wastewater streams as stated in 63.641. See b)(2)h., b)(2)i. and b)(2)j.

(2) Additional Terms and Conditions

a. The annual emission limitation was established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation.

The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(T), 40 CFR Part 60, Subparts A and GGG, and 40 CFR Part 63, Subparts A and CC.

b. The leak detection and repair requirements of OAC rule 3745-21-09(T) applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

c. 40 CFR Part 60, Subpart A provides applicability provisions, definitions, and other general provisions that are pertinent to emissions units affected by 40 CFR Part 60.

d. [40 CFR Part 60, Subpart GGG]

i. [60.590(a)]
The provisions of 40 CFR part 60 Subpart GGG applies to petroleum refinery equipment leaks of VOC from a compressor, valve, pump, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector in VOC service.

ii. [60.592(a)]
The permittee shall demonstrate compliance with the VOC requirements of 40 CFR part 60 Subpart GGG by complying with the VOC requirements of 40 CFR Part 60, Subpart VV, sections 60.482-1 to 60.482-10, as soon as practicable, but no later than 180 days after initial startup. It is the permittee's responsibility to review these regulations to ensure compliance and to incorporate any requirements of these regulations into the design, monitoring, record keeping and reporting for this emissions unit.

iii. [60.592(d)]
The permittee shall also comply with the provisions of 40 CFR 60.485 through 60.487 of 40 CFR 60, Subpart VV found in the facility-wide LDAR program of emissions unit P801.

e. [63.1.(b)(1)]
40 CFR Part 63, Subpart A provides applicability provisions, definitions, and other general provisions that are pertinent to emissions units which emit, or have the potential to emit, any hazardous air pollutant (HAP) listed in, or pursuant to, section 112(b) of the Clean Air Act of 1990 and are subject to any standard, limitation, prohibition, or other federally enforceable requirement established pursuant to 40 CFR part 63.

f. The leak detection and repair requirements of stated in 40 CFR Part 63, subpart CC applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

g. The annual emission limitation was established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation.

The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subparts A and QQQ, 40 CFR Part 61, Subparts A and FF, and 40 CFR Part 63, Subparts A and CC.

h. See the applicable terms in Section C, emissions unit P017, regarding equipment subject to the wastewater provisions of 40 CFR part 60, Subpart QQQ.

i. 40 CFR Part 61, Subpart A provides applicability provisions, definitions, and other general provisions that are pertinent to emissions units affected by 40 CFR Part 61.

j. See the applicable terms in Section C, emissions unit P017, regarding equipment subject to the wastewater provisions of 40 CFR part 61, Subpart FF.

k. The allowable emission limits for equipment leaks and wastewater for this emissions unit are also reflected in the facility-wide allowable emission limits stated in P017 and P801.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

4.41 tons per year of volatile organic compounds (VOC) from equipment leaks

Applicable Compliance Method;

The potential to emit (PTE) fugitive emissions are based upon the sum of PTE fugitive emissions from components in each emissions unit at the facility. These components include all valves, pumps, pressure relief valves, connectors, open-ended lines and sampling connections in regulated service at the facility. The fugitive emissions are calculated using the facility component count, component service type, and the petroleum industry screening value correlations.

Fugitive emission rates are calculated utilizing Tables 2-10 "Petroleum Industry Leak Rate/Screening Value Correlations"; 2-12 "Default-Zero Values: Petroleum Industry" and 2-14 "10,000 ppmv and 100,000 ppmv Screening Value Pegged Emission Rates for the Petroleum Industry" as listed in "Protocol for Equipment Leak Emission Estimates" (EPA-453/R-95-017). Use of "Default Zero Values" can only be used for non-detectable screening values as measured by a portable monitoring device having a minimum detection limit of greater than 1 ppmv.

The equipment service/type (gas/vapor, light liquid and heavy liquid service) for each component is determined according to the definitions contained in 40 CFR Part 63, Subpart CC for equipment in organic HAP service. For equipment not in organic HAP service, the equipment service/type (gas/vapor, light liquid and heavy liquid service) is determined according to the following definitions.

In gas/vapor service means that the piece of equipment contains or contacts process fluid that is in the gaseous state at the operating conditions.

In heavy liquid service means that the piece of equipment is not in gas/vapor service or in light liquid service.

In light liquid service means that the piece of equipment contains or contacts process fluid that meets the conditions specified in paragraph (O)(3) of OAC rule 3745-21-10.

The fugitive emissions shall be calculated by multiplying all components in a given service type by the respective leak emission rates as listed in the tables of "Protocol for Equipment Leak Emission Estimates" (EPA-453/R-95-017) and then converted to tons per year. The total VOC emissions from fugitive equipment leaks is the sum of emissions from all components comprised in this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 04-01319]

b. Emission Limitation;

1.55 tons per year of volatile organic compounds (VOC) from wastewater

Applicable Compliance Method;

Compliance for those components subject to 40 CFR Part 61, Subpart FF, shall be demonstrated through the "Test methods, Procedures and Compliance Provisions" of 40 CFR Part 61.355 of Subpart FF [see section C, emissions unit P017 of the Title V permit].

Compliance for those components subject to 40 CFR Part 60, Subpart QQQ, shall be demonstrated using the fugitive emission factors contained in “VOC Emissions from Petroleum Refinery Wastewater Systems-Background Information for Proposed Standards”, EPA-450/3-85-001a, Feb. 1985, Table 4-1 (drains) and section 3.2.1.6 (junction boxes):

drains, with 50% control (water seal) 0.012 tons VOC/year/drain

junction boxes with 50% control (water seal) 0.31 tons VOC/year/box

Multiply the stated emission factor times the number of respective components (in tons VOC per year) and add them to the tons VOC per year determined for those components subject to 40 CFR Part 61, Subpart FF as calculated according to section 61.355 [see Section C, emissions unit P017].

[Authority for term: OAC rule 3745-77-07(C)(1) and PTI 04-01319]

g) Miscellaneous Requirements

(1) None.

36. P040, Cooling Tower - Plant 3 TGTU

Operations, Property and/or Equipment Description:

P040 - Cooling Tower, north of the Plant 3 TGTU area, capacity of 2,000 gallons per minute, non-contact, induced draft, with drift elimination package.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-01447 issued 9/29/06 and modified on 1/23/07, 2/23/09 1/14/10, 5/28/10, 1/27/2011 and 1/6/2012 - P0108943)	Particulate emissions (PE) shall not exceed 0.12 pound per hour and 0.52 ton per year as a rolling 12-month summation of the monthly emissions See b)(2)a. Volatile organic compounds (VOC) shall not exceed 0.084 pound per hour and 0.37 ton per year. See section b)(2)b. Visible emissions from this emissions unit shall not exceed 10% opacity as a six-minute average. It shall not be deemed a violation of this rule where the presence of uncombined water is the only reason for failure of a stack emission to meet the requirements of this rule.
b.	OAC rule 3745-17-07(A)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-31-10 through 20 (PTI 04-01447 issued 9/29/06 and modified on 1/23/07, 2/23/09 1/14/10, 5/28/10, 1/27/2011 and 1/6/2012 - P0108943)	Particulate matter less than 10 microns (PM_{10}) shall not exceed 0.12 pound per hour and 0.52 ton per year as a rolling 12-month summation of the monthly emissions. The drift eliminator shall provide 75% reduction in PM_{10}. See b)(2)a.
e.	40 CFR Part 63, Subpart Q	Exempt, see b)(2)c.

(2) Additional Terms and Conditions

a. The total dissolved solids (TDS) present in cooling water drift is directly responsible for the formation of particulate emissions when the drift is discharged from a cooling tower.

b. The hourly and annual emission limitations were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.

c. The permittee does not use chromium based water treatment chemicals.

c) Operational Restrictions

(1) The permittee shall operate the drift eliminator at all times when the emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall keep the following weekly records:

a. The permittee shall collect, test and record the TDS content, in ppm, of the cooling water at least once per week. The TDS content shall be measured using test procedures that conform to regulation 40 CFR 136, "Test Procedures For The Analysis of Pollutants" or an equivalent method approved by the Ohio EPA.

b. The weekly flow rate of the cooling tower circulating water in gallons per week.

c. The hours of operation in hours per week.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) Each week, the permittee shall calculate and record the average particulate matter (PM_{10}) emissions in pounds per hour as follows, using the emission factor for PE/PM_{10} from AP-42, Table 13.4-1 (January, 1995):

PM_{10}, in lbs/hr = [(Q gallons/min) x (0.019 lb PM10/1000 gal) x (TDS ppm/12,000 ppm) x (0.25) x (60 min/hr)]

where:

Q = the average cooling tower circulating water flow rate (gallons/min), calculated from d)(1).

0.019 lb PM_{10}/1000 gallons = AP-42 emission factor, Table 13.4-1 for induced cooling towers;

TDS ppm = the tested TDS level in ppm;

12,000 ppm = the baseline TDS level, see AP-42, Table 13.4-1;

0.25 = (0.00005/0.0002) the maximum drift loss fraction compared to the baseline; and

60 min/hr = conversion factor for minutes to hours.

A calculated exceedance of the allowable hourly emission limitation using the procedures of this section does not indicate a violation of the allowable hourly emission limitation. Rather, it serves as a trigger level at which corrective action needs to be taken in order to lower the TDS concentration of the cooling water to a level acceptable to comply with the hourly emission limitation.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) Each month, the permittee shall use the information in d)(2) to calculate the rolling, 12-month PM_{10} emissions.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit quarterly deviation reports that identify all exceedances of the hourly and annual allowable particulate emission and particulate matter less than 10 microns limitation. The quarterly deviation reports shall be submitted in accordance with the general terms and conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

0.12 pound per hour of PE/PM_{10}

Applicable Compliance Method:

This emission limitation was developed by the calculation in section d)(2) using a maximum flow rate of 2,000 gallons per minute, a total dissolved solids (TDS) value of 2500 ppm and assuming a drift loss of 0.005%. Compliance with the hourly emission rate shall be shown through the monitoring and recordkeeping in d).

If required, the permittee shall conduct drift measurement testing to determine the drift factor for this cooling tower utilizing the "Isokinetic Drift Measurement Test Code for Water Cooling Towers", c), June, 1994 (or the most recent edition) from the Cooling Technology Institute.

b. Emission Limitation:

0.52 ton per year of PE/PM_{10} as a rolling, 12-month summation of the monthly emissions

Applicable Compliance Method:

Provided the permittee demonstrates compliance with the pound per hour emission limit as calculated in the monitoring and recordkeeping in d), compliance with the annual limitation will be assumed.

c. Emission Limitation:

0.084 lb/hr of VOC

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly limitation by multiplying the VOC emission factor of 0.7 pound per million gallons of flow, from AP-42 Table 5.1-2 (dated 1/95), by the maximum flow rate in gallons per hour.

d. Emission Limitation:

0.37 ton per year of VOC as a rolling, 12-month summation of the monthly emissions

Applicable Compliance Method:

The annual emission limitation was derived by multiplying the hourly emission limitation times 8,760 hrs/yr and dividing by 2,000 lbs/ton. Compliance with the annual limitation shall be shown as long as compliance with the hourly emission limitation is maintained.

e. Emission Limitation:

Visible particulate emissions shall not exceed 10% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible particulate emission limitation above in accordance with the methods and procedures specified in 40 CFR 60, Appendix A, Method 9 and the requirements of OAC rule 3745-17-03(B)(1). Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

f. Emission Limitation:

75% reduction of PM_{10} for the cooling tower using the Drift Eliminator package as control

Applicable Compliance Method:

The permittee shall demonstrate compliance by maintaining records of the manufacturer's performance guarantee for the drift elimination package.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

37. P041, Claus SRU No. 2

Operations, Property and/or Equipment Description:

P041 - Claus sulfur recovery unit No. 2 and sulfur pit with tail gas unit and incinerator. Emissions from the Claus sulfur recovery unit will be vented to the number 2 tail gas treating unti with 17 mmBtu/hr incinerator.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-01447 issued 9/29/06 and modified on 1/23/07, 2/23/09 1/14/10, 5/28/10, 1/27/2011, and 1/6/2012 - P0108943)	Hydrogen sulfide (H_2S) emissions shall not exceed 10 parts per million by volume dry (ppmvd) and 1.87 ton per year, based upon a rolling, 365-day summation of the daily emissions; Nitrogen oxides (NOx) emissions shall not exceed 2.55 pounds per hour and 11.17 tons per year, based upon a rolling, 365-day summation of the daily emissions; Filterable plus condensable particulate matter (PM) emissions shall not exceed 1.36 pounds per hour and 5.96 tons per year, based upon a rolling, 365-day summation of the daily emissions; Sulfur dioxide (SO_2) emissions shall not exceed 23.41 pounds per hour and 85.46 tons per year, based upon a rolling, 365-day summation of the daily emissions; Volatile organic compounds (VOC) emissions shall not exceed 1.75 pound per hour and 7.68 tons per year, based upon a rolling, 365-day summation of the daily emissions;

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Visible emissions shall not exceed 10% opacity as a 6-minute average; and See b)(2)a., b)(2)h. and b)(2)i.
b.	OAC rule 3745-31-05(D) (PTI 04-01447 issued 9/29/06 and modified on 1/23/07, 2/23/09 1/14/10, 5/28/10, 1/27/2011 and 1/6/2012 - P0108943)	See b)(2)e.
c.	OAC rule 3745-17-07(A)(1)	See b)(2)f.
d.	OAC rule 3745-17-11(B)	See b)(2)f.
e.	OAC rule 3745-18-06(E)	See b)(2)f.
f.	OAC rule 3745-21-09(T)	See b)(2)h.
g.	40 CFR Part 60, Subpart A (40 CFR 60.1-19)	See b)(2)c.
h.	40 CFR Part 60, Subpart J (40 CFR 60.100-109) [In accordance with 40 CFR 60.100(a) and as defined in 60.101(i), this emission unit is a Claus sulfur recovery plant in a petroleum facility.]	See b)(2)b.
i.	40 CFR Part 63, Subpart A (40 CFR 60.1-19)	See b)(2)d.
j.	40 CFR Part 63, Subpart UUU (40 CFR 63.1560-1579) [In accordance with 40 CFR 63.1561(a)(1)(iii), this emissions unit is a new SRU at an existing petroleum refinery subject to the NSPS for sulfur oxides in 40 CFR 60.104(a)(2) and subject to the emission limitations/control measures specified in this section.]	The permittee must meet the emissions limitations for NSPS units. [40 CFR 63.1568(a)(1)] See b)(2)b.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
k.	OAC rule 3745-31-10 through 20 (PTI 04-01447 issued 9/29/06 and modified on 1/23/07, 2/23/09 1/14/10, 5/28/10, 1/27/2011 and 1/6/2012 - P0108943)	CO emissions shall not exceed 5.11 pounds per hour, 0.30 pound per million Btu of heat input (incinerator), and 22.40 tons per year, based upon a rolling, 365-day summation of the daily emissions; Particulate matter emissions less than 10 microns in diameter (PM_{10}) shall not exceed 1.36 pounds per hour, 0.08 pound per million Btu of heat input, and 5.96 tons per year, based upon a rolling, 365-day summation of the daily emissions; and See b)(2)g.

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart J and 40 CFR Part 63, Subpart UUU.

b. The permittee shall not discharge or cause the discharge of any gases into the atmosphere from any Claus sulfur recovery plant containing in excess of 250 ppm by volume (dry basis) of SO_2 at zero percent excess air, as a rolling, 12-hour average.

c. 40 CFR Part 60, Subpart A provides applicability provisions, definitions, and other general provisions that are pertinent to emissions units affected by 40 CFR Part 60.

d. 40 CFR Part 63, Subpart A provides applicability provisions, definitions, and other general provisions that are pertinent to emissions units affected by 40 CFR Part 63.

Table 44 of 40 CFR Part 63, Subpart UUU shows which parts of the General Provision in 40 CFR Part 63.1 through 63.15 apply to this emissions unit.

e. The permittee shall develop and maintain a written quality assurance/quality control plan for the continuous SO_2 monitoring system, designed to ensure continuous valid and representative readings of SO_2 emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous SO_2 monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative

accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

f. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

g. The hourly and annual emission limitations for CO, H_2S, NOx, PM, PM_{10} and VOC were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.

h. The leak detection and repair requirements of OAC rule 3745-21-09(T) applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

i. Pursuant to 40 CFR 63.1570(g), deviations that occur during a period of startup, shutdown, or malfunctions are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with 40 CFR 63.6(e)(1). The SSMP must include elements designed to minimize the frequency of such periods (i.e., root cause analysis). The Administrator determines whether deviations that occur during a period of startup, shutdown, or malfunction are violations according to the provisions in 40 CFR 63.6(e).

c) Operational Restrictions

(1) The permittee shall burn only natural gas or refinery fuel gas as fuel in this emissions unit. [There are 2 sources of particulate emissions from this process: sulfur-containing process emissions and particulate emissions from the combustion of fuel at the incinerator. This term and condition is to assure compliance with opacity emission limitation for the particulate emissions resulting from combustion of fuel gas and to make daily VE readings unnecessary. Compliance with the visible emission limitation for opacity caused by the sulfur portion of particulate emissions will be assured by the continuous SO_2 emissions monitoring system.]

[Authority for term: OAC rule 3745-77-07(A)(1)]

(2) [Consent Decree (CD), section I.45. and PTI P0106143] Sulfur Pit Emissions
The permittee shall route all sulfur pit emissions so that they are eliminated, controlled, or included and monitored as part of the sulfur recovery plant's emissions subject to the 40 CFR Part 60, Subpart J limitation for SO_2, 40 CFR 60.104(a)(2), upon date of startup of this emissions unit.

(3) [CD, section I.47a. and PTI 0106143] Good Operation and Maintenance
The permittee shall have submitted to the U.S. EPA, Ohio EPA, and Toledo Environmental Services a summary of the plans, implemented or to be implemented, at the Toledo Refinery for enhanced maintenance and operation of the sulfur recovery plant (SRP), and tail gas units (TGUs), including any supplemental control devices, and the appropriate upstream process units. This plan shall be termed a Preventive Maintenance and Operation Plan (PMOP). The PMOP shall be a compilation of the

permittee's approaches for exercising good air pollution control practices and for minimizing SO_2 emissions at the Toledo Refinery. The PMOP shall have as its goal the elimination of Acid Gas Flaring and the continuous operation of the SRP, between scheduled maintenance turnarounds, with a minimization of emissions. The PMOP shall include, but not be limited to, sulfur shedding procedures, startup and shutdown procedures, emergency procedures and schedules to coordinate maintenance turnarounds of the SRP Claus trains and associated TGUs to coincide, if necessary to minimize emissions, with scheduled turnarounds of major Upstream Process Units. The permittee shall operate consistent with the PMOP at all times, including periods of startup, shutdown and malfunction of its SRP. Changes to a PMOP related to minimizing acid gas flaring and/or SO2 emissions shall be summarized and reported by the permittee to U.S. EPA, Ohio EPA and Toledo Environmental Services on an annual basis.

(4) [CD, section I.47b. and PTI P0106143] Good Operation and Maintenance
U.S. EPA, Ohio EPA and Toledo Environmental Services do not, by their review of a PMOP and/or by their failure to comment on a PMOP, warrant or aver in any manner that any of the actions that the permittee may take pursuant to such PMOP will result in compliance with the provisions of the Clean Air Act or any other applicable federal, state, or local law or regulation. Notwithstanding the review by EPA or any state agency of a PMOP, the permittee shall remain solely responsible for compliance with the Clean Air Act and such other laws and regulations.

(5) [40 CFR 63, Subpart UUU] NATIONAL EMISSION STANDARDS FOR HAPS FOR PETROLEUM REFINERIES: SULFUR RECOVERY UNIT

The permittee shall comply with the applicable restrictions in 63.1568, including the following sections:

63.1568(a)(3)	Must prepare an operation, maintenance, and monitoring plan (OMMP) according to the requirements in 63.1574(f) and operate accordingly.

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than natural gas or refinery fuel gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall maintain on-site, the document of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous SO_2 monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2. The letter/document of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendix B]

(3) The permittee shall install, operate, and maintain equipment to continuously monitor and record SO_2 emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

The permittee shall maintain records of data obtained by the continuous SO_2 monitoring system including, but not limited to:

a. emissions of SO_2 in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;

b. emissions of SO_2 in all units of the applicable standard(s) in the appropriate averaging period;

c. results of quarterly cylinder gas audits;

d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

f. hours of operation of the emissions unit, continuous SO_2 monitoring system, and control equipment;

g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous SO_2 monitoring system;

h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous SO_2 monitoring system; as well as,

i. the reason (if known) and the corrective actions taken (if any) for each such event in g. and h.

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

NOTE: Valid cycle time CEMS data shall not be required during periods in which scheduled CEMS system maintenance events (such as system blow-backs) occur. CEMS cycle time data recorded during a scheduled maintenance event shall be flagged as invalid due to the scheduled maintenance event, and not used in future compliance determination calculations.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendices B and F]

(4) [40 CFR 63, Subpart UUU] NATIONAL EMISSION STANDARDS FOR HAPS FOR PETROLEUM REFINERIES: SULFUR RECOVERY UNIT

The permittee shall comply with the applicable monitoring and recordkeeping requirements under this Subpart, including the following sections:

63.1568(b)	*Requirements for HAP emissions from SRU:* Install, operate, and maintain a continuous monitoring system according to 63.1572 and Table 31; correct reduced sulfur samples to 0% excess air.
63.1568 (c)	Demonstrate continuous compliance with 250 ppmvd SO_2 at 0% excess air according to the methods specified in Table 34.
63.1569(a) through (c)	*Requirements for HAP emissions from bypass lines*.
63.1570(a)	*General Requirements*: Must be in compliance with the SO_2 standards, except during startup, shutdown and malfunctions.
63.1570(c)	Requirements for operating and maintaining the affected source including the air pollution control equipment and monitoring equipment.
63.1570(d) through (g)	Develop a written startup, shutdown and malfunction plan (SSMP) and operate accordingly.
63.1572(a), (c) and (d)	*Monitoring, Operating, and Maintenance Requirements*: Install, operate and maintain an SO_2 CEM according to Table 40; if applicable, the permittee must maintain a continuous parameter monitoring system according to Table 41. Monitor and collect data according to the requirements of (d)(1) and (2).
63.1573(a) through (e)	*Monitoring Alternatives*: Monitoring alternatives for gas flow rate: pH; another type of monitoring system; other process or control device operating parameters. Information on how to request monitor alternative parameters.
63.1574(f)	*Records:* requirements of the OMMP for the continuous monitoring system.
63.1576(a)	*Recordkeeping Requirements:* Keep records of notifications submitted; records related to startup, shutdown and malfunctions and records of performance tests.
63.1576(b)	Records for the monitoring data for the SO_2 CEMS and records of any deviations.

63.1576(d)	Records as required by Tables 34 and 35 for the SRU and Table 39 for bypass lines.
63.1576(e)	Keep a current copy of the operation, maintenance and monitoring plan and records showing continuous compliance with the plan.
63.1576(f)	Record requirements for any changes that affect emission control system performance.
63.1576(g) through (i)	Requirements for records as to the form of the record and length of time to store them and where the records may be stored.

(5) The permittee must comply with the operation, maintenance and monitoring plan (OMMP) as required by 40 CFR Part 63, Subpart UUU, submitted on April 15, 2010, or any future updates.

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas or refinery fuel gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous SO_2 monitoring system:

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR Parts 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of SO_2 emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapter 3745-18, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s). If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect.

b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

i. the facility name and address;

ii. the manufacturer and model number of the continuous SO_2 and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;

v. the total operating time (hours) of the emissions unit;

vi. the total operating time of the continuous SO_2 monitoring system while the emissions unit was in operation;

vii. results and dates of quarterly cylinder gas audits;

viii. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

ix. unless previously submitted, the results of any relative accuracy test audit showing the continuous SO_2 monitor out-of-control and the compliant results following any corrective actions;

x. the date, time, and duration of any/each malfunction** of the continuous SO_2 monitoring system, emissions unit, and/or control equipment;

xi. the date, time, and duration of any downtime** of the continuous SO_2 monitoring system and/or control equipment while the emissions unit was in operation; and

xii. the reason (if known) and the corrective actions taken (if any) for each event in (b)(x) and (xi).

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

** each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit

[Authority for term: 40 CFR 60.7]

(4) [40 CFR Part 63, Subpart UUU] NATIONAL EMISSION STANDARDS FOR HAPS FOR PETROLEUM REFINERIES: SULFUR RECOVERY UNIT - REPORTS AND NOTIFICATIONS

The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 63, Subpart UUU, including the following sections:

63.1574(a) through (d)	*Notifications and Reports*: Initial notifications stated in 63.1574(a) were previously sent by the permittee. Must send the notification of compliance and include the information in Table 42. Must prepare and implement an operation, maintenance, and monitoring plan for each control system and continuous monitoring system as stated in 63.1574(f).
63.1574(f)(1)	Submit any changes to the OMMP for review and approval and comply with the plan until approved.
63.1575(a) through (c)	Submit each semiannual report in Table 43 that applies to this emissions unit regarding emission limitations and work practice deviations. The reporting period is from Jan. 1 to June 30 and from July 1 to Dec. 31. The reports must be delivered no later than July 31 or January 31, respectively and contain the information contained in 63.1575(c)(1) through (4).
63.1575(d)	Deviations from the emission limitation and work practice standards shall contain the information required in (d) for the report.
63.1575(e)	Required information for reports for CEMs.
63.1575(f)	Include the information in (f)(1) and (2) if applicable, pertaining to performance tests and any requested change in the applicability of a standard.
63.1575(g)	The permittee may submit reports required by other regulations in place of or as part of the compliance report if they contain the required information.
63.1575(h)	Reporting requirements regarding startups, shutdowns and malfunctions

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation;

Visible emissions shall not exceed 10% opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(1).

b. Emission Limitation:

CO emissions shall not exceed 5.11 pounds per hour.

Applicable Compliance Method:

This emission limitation was established by the following emission calculation using the permittee-supplied one-hour average emission factor of 150 ppmvd CO at 0% oxygen: multiply the maximum stack gas flow rate (7,700 dscfm at 0% O_2) by 60 minutes per hour, multiply by 150 parts, divide by 1,000,000 parts, multiply by the molecular weight of CO (28 lb/lb-mole), and divide by 379.43 cubic feet per pound mole.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 4 and 10 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

c. Emission Limitation:

CO emissions shall not exceed 22.40 tons per year tons per year, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit by the following emission calculation using the allowable emission limitation of 150 ppmvd at 0% O_2: multiply the maximum stack gas flow rate (7,700 dscfm at 0% O_2) by 60 minutes per hr, multiply by 24 hours per day, multiply by 365 days per year, multiply by 150 parts, divide by 1,000,000 parts, multiply by the molecular weight of CO (28 lb/lb-mole), divide by 379.43 cubic feet per pound mole, and divide by 2,000 pounds per ton.

d. Emission Limitation:

H_2S emissions shall not exceed 10 ppmvd.

Emission Limitation:

This emission limitation is based on emission testing conducted by the permittee on a similar emissions unit. If required, the permittee shall demonstrate compliance using the methods and procedures of 40 CFR 60.106(f)(2).

e. Emission Limitation:

H_2S emissions shall not exceed 1.87 ton per year, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the maximum stack gas flow rate (7,938 dscfm) by the maximum annual minutes of operation (60 minutes/hr x 24 hrs/day x 365 days/yr), multiply by 10 parts divided by 1,000,000 parts, multiply by the molecular weight of H_2S (34.1 lb/lb-mole), divide by 379.43 cubic feet per pound mole, and divide by 2000 lbs/ton.

f. Emission Limitation:

NOx emissions shall not exceed 2.55 pounds per hour.

Applicable Compliance Method:

Compliance may be determined through calculations based on the low-NOx burner emission factor supplied by the permittee as follows: multiply the manufacturer's guaranteed emission factor of 0.15 pound of NOx emissions per million Btu by the maximum heat input capacity of 17 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 7 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

g. Emission Limitation:

NOx emissions shall not exceed 11.17 tons per year, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 2.55 pounds of NOx per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

h. Emission Limitation:

Filterable plus condensable PM emissions shall not exceed 1.36 pounds per hour.

Applicable Compliance Method:

Compliance may be determined through calculations based on the manufacturer's guaranteed emission factor as follows: multiply the emission factor of 0.08 pound of PM per million Btu by the maximum heat input capacity of 17 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 5 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(9) to determine the filterable PM emissions. Method 202 of 40 CFR Part 51, Appendix M shall be used to determine the condensable PM emissions. Add the results of the Method 5 emission testing to the results of the Method 202 emission testing to determine the filterable plus condensable PM emissions. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

i. Emission Limitation:

Filterable plus condensable PM emissions shall not exceed 5.96 tons per year, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 1.36 pounds of PE per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

j. Emission Limitation:

PM_{10} emissions shall not exceed 1.36 pounds per hour.

Applicable Compliance Method:

Compliance may be determined through calculations based on the manufacturer's guaranteed emission factor, as follows: multiply the emission factor of 0.08 pound of PM per million Btu by the maximum heat input capacity of 17 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 201 and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

k. Emission Limitation:

PM_{10} emissions shall not exceed 5.96 tons per year, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 1.36 pounds of PM_{10} per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

l. Emission Limitation:

SO_2 emissions shall not exceed 250 ppmvd at 0% excess air as a rolling, 12-hr average.

Applicable Compliance Method:

The monitoring and recordkeeping requirements of d) shall be used to demonstrate compliance. If required, the permittee shall demonstrate compliance using the methods and procedures of 40 CFR 60.106(f)(1).

m. Emission Limitation:

SO_2 emissions shall not exceed 23.41 pounds per hour.

Applicable Compliance Method:

This emission limitation was established by the following emission calculation using the permittee-supplied one-hour average emission factor of 300 ppmvd SO_2 at 0% oxygen: multiply the maximum stack gas flow rate (7,700 dscfm at 0% O_2) by 60 minutes per hour, multiply by 300 parts, divide by 1,000,000 parts, multiply by the molecular weight of SO_2 (64.1 lb/lb-mole), and divide by 379.43 cubic feet per pound mole.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 6 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-18-04. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

n. Emission Limitation:

SO_2 emissions shall not exceed 85.46 tons per year, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit by the following emission calculation using the allowable emission limitation of 250 ppmvd at 0% O_2: multiply the maximum stack gas flow rate (7,700 dscfm at 0% O_2) by 60 minutes per hr, multiply by 24 hours per day, multiply by 365 days per year, multiply by 250 parts, divide by 1,000,000 parts, multiply by the molecular weight of SO_2 (64.1 lb/lb-mole), divide by 379.43 cubic feet per pound mole, and divide by 2,000 pounds per ton.

o. Emission Limitation:

VOC emissions shall not exceed 1.75 pound per hour.

Applicable Compliance Method:

This emission limitation was established by the following emission calculation using the permittee-supplied one-hour average emission factor of 60 ppmv VOC : multiply the maximum stack gas flow rate (7,700 dscfm at 0% oxygen) by 60 minutes per hour, multiply by 60 parts, divide by 1,000,000 parts, multiply by an average molecular weight of 24 lb/lb-mole and divide by 379.43 cubic feet per pound mole. If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 25 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-21-10. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

p. Emission Limitation:

VOC emissions shall not exceed 7.68 tons per year, based upon a rolling, 365-day summation of the daily emissions.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit by the following emission calculation using the allowable emission limitation of 60 ppmvd at 0% O_2: multiply the maximum stack gas flow rate (7,700 dscfm at 0% O_2) by 60 minutes per hr, multiply by 24 hours per day, multiply by 365 days per year, multiply by 60 parts, divide by 1,000,000 parts, multiply by the average molecular weight of VOC (24 lb/lb-mole), divide by 379.43 cubic feet per pound mole, and divide by 2,000 pounds per ton.

q. Emission Limitation:

PM_{10} emissions shall not exceed 0.08 pound per million Btu of heat input

Applicable Compliance Method:

This emission limitation was established based on the manufacturer's guarantee for the incinerator, supplied by Toledo Refining Co. If required, the permittee shall demonstrate compliance with this emission limitation through emission

testing performed in accordance with Methods 201 and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

r. Emission Limitation:

CO emissions shall not exceed 0.30 pound per million Btu of heat input

Applicable Compliance Method:

This emission limitation was established based on the manufacturer's guarantee for the incinerator, supplied by Toledo Refining Co., Inc. If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 4 and 10 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) Ongoing compliance with the SO_2 emission limitations contained in this permit, 40 CFR Part 60, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit; and through demonstration of compliance with a quality assurance/quality control plan which meets the requirements of 40 CFR Part 60.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendices B and F]

(3) The permittee shall conduct certification tests of the continuous SO_2 monitoring system in units of the applicable standard(s) to demonstrate compliance with 40 CFR, Part 60, Appendix B, Performance Specifications 2; and ORC section 3704.03(I).

Personnel from the Ohio EPA Central Office and the Ohio EPA District Office or Local Air Agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to Ohio EPA, one copy to the Ohio EPA District Office or Local Air Agency and one copy to Ohio EPA Central Office, and pursuant to OAC rule 3745-15-04, within 30 days after the test is completed.

Certification of the continuous SO_2 monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets the requirements of 40 CFR, Part 60, Appendix B, Performance Specifications 2; and ORC section 3704.03(I).

g) Miscellaneous Requirements

(1) The following tables from 40 CFR 63 Subpart UUU are applicable to this emissions unit: Tables 29; 30; 31; 33; 34; 35; 36; 37; 38; 39; 40; 41; 42; 43 and 44.

[Authority for term: 40 CFR 63, Subpart 63]

38. P801, Process Units

Operations, Property and/or Equipment Description:

P801 -Facility-wide Leak Detection and Repair (LDAR) program subject to refinery MACT and OAC rule 3745-21-09(T).

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI 04-01447 issued 9/29/06 and modified on 1/23/07, 2/23/09 1/14/10, 5/28/10, 1/27/2011 and 1/6/2012 - P0108943)	385.43 tons per year volatile organic compounds (VOC) per rolling 12-month summation of the monthly emissions see b)(2)a. and (2)b.
b.	40 CFR Part 63, Subpart CC (40 CFR 63.640 – 656) [In accordance with 40 CFR 63.640 this emissions unit has an existing facility-wide LDAR program at an existing petroleum refinery subject to the emission limitations and control measures specified in this Subpart.]	see b)(2)c. and (2)d.
c.	40 CFR Part 60, Subpart GGG (40 CFR 60.590 – 593) [In accordance with 40 CFR 60.590(a), this facility has a compressor or equipment within a process unit that is an affected facility in a petroleum refinery as defined in 60.591 subject to Subpart GGG of this part.]	see b)(2)h.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	40 CFR Part 60, Subpart VV (40 CFR 60.480 - 489) [In accordance with 40 CFR 63.648(a) this emissions unit has an existing facility-wide LDAR program at an existing petroleum refinery subject to the emission limitations and control measures specified in 40 CFR 63, Subpart CC and this Subpart.]	see b)(2)c. and (2)d.
e.	OAC rule 3745-21-09(T) [This regulation applies to petroleum refinery equipment leaks of volatile organic compounds from pump seals, pipeline valves, process drains, compressor seals and pressure relief devices.]	see b)(2)e.
f	*Enhanced LDAR Program* OAC rule 3745-31-05(D) (PTI 04-01447 issued 9/29/06 and modified on 1/23/07, 2/23/09 1/14/10, 5/28/10, 1/27/2011 and 1/6/2012 - P0108943)	see b)(2)f. and (2)g.
g.	40 CFR Part 63, Subpart H (40 CFR 63.160-183) [In accordance with 40 CFR 63.160(a), this subpart applies to pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, instrumentation systems, and control devices or closed vent systems required by this subpart that are intended to operate in organic hazardous air pollutant service 300 hours or more during the calendar year within a source subject to the provisions of a specific subpart in 40	See b)(2)i., b)(2)j. and b)(2)k.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	CFR part 63 that references this subpart.]	

(2) Additional Terms and Conditions

a. Modifications of the equipment at this facility shall not require a PTI/Title V modification that results solely in increases in fugitive equipment leaks unless and until the calculated facility-wide potential to emit (PTE) for fugitive emissions equals or exceeds the allowable fugitive emission limit stated in b)(1) or triggers applicability of a Federal requirement.

b. The permittee shall consider only those fugitive emissions from the equipment being installed or modified (i.e., not the facility-wide fugitive equipment limit) when determining applicability under OAC rule 3745-31-11 through OAC rule 3745-31-20.

c. [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 40 CFR 63.648(b) except as provided in (a)(1), 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:

"In organic hazardous air pollutant service means that a piece of equipment either contains or contacts a fluid (liquid or gas) that is at least 5 percent by weight of total organic HAP's as determined according to the provisions of 40 CFR 63.180(d) of Subpart H of this part and table 1 of this Subpart. The provisions of 63.180(d) of Subpart H also specify how to determine that a piece of equipment is not in organic HAP service."

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 source-wide basis. All subsequent calculations shall be on the same basis unless a permit change is made.

d. [63.640(p)] - Equipment Leaks
After the compliance dates (existing sources – Aug. 18, 1998; new sources – upon startup), equipment leaks that are also subject to the provisions of 40 CFR parts 60 and 61 standards promulgated before September 4, 2007, are required to comply only with the provisions specified in this subpart. Equipment leaks that are also subject to the provisions of 40 CFR Part 60, Subpart GGGa, are

required to comply only with the provisions specified in 40 CFR Part 60, Subpart GGGa.

e. [OAC 3745-21-09(T)(1)]
Except as otherwise provided in OAC 3745-21-09(T)(b) and OAC 3745-21-09(T)(1)(c), the permittee shall establish a leak detection and repair program of this section, in compliance with the monitoring, record keeping and reporting requirements of this permit.

f. An enhanced LDAR program is required by the consent decree as entered on March 14, 2006. Most of the requirements established by the consent decree are more stringent than the requirements of 40 CFR 63, Subpart CC and OAC rule 3745-21-09(T).

g. [Consent Decree (CD), section N. - LEAK DETECTION AND REPAIR PROGRAM ENHANCEMENTS]
In order to minimize or eliminate fugitive emissions of volatile organic compounds (“VOCs”), benzene, volatile hazardous air pollutants (“VHAPs”), and organic hazardous air pollutants (“HAPs”) from equipment in light liquid and/or in gas/vapor service, The permittee shall implement the measures required by the Consent Decree entered March 14, 2006, to enhance the Refinery’s LDAR program under Title 40 of the Code of Federal Regulations, Part 60, Subpart GGG; Part 63, Subparts F, H, and CC; and applicable state LDAR requirements. The terms “equipment”, “in light liquid service” and “in gas/vapor service” shall have the definitions set forth in the applicable provisions of Title 40 of the Code of Federal Regulations, Part 60, Subpart GGG; Part 63, Subparts F, H and CC; and applicable state LDAR regulation.

h. [40 CFR 60, Subpart GGG]
For those pieces of equipment not subject to 40 CFR 63, Subpart CC for equipment leaks as defined by the definition of "in organic hazardous air pollutant" may be subject to 40 CFR 60, Subpart GGG.

i. [40 CFR, Part 63, Subpart H]
The following emissions units contained in this permit are subject to 40 CFR, Part 63, Subpart H, National Emission Standards for Hazardous Air Pollutants: Equipment Leaks: J001, J002, P008, P013, P014, P016 (if loading benzene), P031, T028, T037, T047, T098, T099, T101, T153, T154 and T157.

j. [40 CFR, Part 63, Subpart H, 63.160(b)]
Equipment to which this subpart applies and are also subject to the provisions of: 40 CFR part 60 or 40 CFR part 61 will be required to comply only with the provisions of this subpart.

k. [40 CFR, Part 63, Subpart H, 63.160(c)]
If a process unit subject to the provisions of this subpart has equipment to which this subpart does not apply, but which is subject to a standard identified in 40 CFR part 60, subpart VV, GGG, or KKK; 40 CFR part 61, subpart F or J; or 40 CFR part 264, subpart BB or 40 CFR part 265, subpart BB.; the permittee may elect to apply this subpart to all such equipment in the process unit. If the

permittee elects this method of compliance, all VOC in such equipment shall be considered, for purposes of applicability and compliance with this subpart, as if it were organic hazardous air pollutant (HAP). Compliance with the provisions of this subpart, in the manner described in this paragraph, shall be deemed to constitute compliance with the standards identified above.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES

The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, Subpart CC, including the following sections, briefly summarized:

63.648(a)	*Equipment Leak Standards*: Toledo Refining Co. currently complies with 40 CFR 60, Subpart VV for existing equipment. Monitoring data and test methods must meet the procedures specified in 60.485(b).
63.648(c)	Optional compliance with 40 CFR Part 63, Subpart H.
63.648(d)	New source requirements.
63.648(e), (f), (g) and (i)	Exemptions for reciprocating pumps and agitators in heavy liquid service; pumps in light liquid service; compressors in hydrogen service and reciprocating compressors
63.648(h)	Records must be maintained for a minimum of 5 years.
63.649	*Alternative Means of Emission Limitation: Connectors in gas/vapor service and light liquid service*
63.649(b)	Random 200 connector alternative.
63.649(c)	Connector inspection alternative.
63.649(d)	Subpart H program alternative.
63.649(e)	Delay of repair of connectors.
63.649(f)	Unsafe-to-monitor connectors.
63.655(d)	Recordkeeping provisions pertaining to 40 CFR Part 60, subpart VV and 40 CFR 63, subpart H.

(2) [40 CFR 60, Subpart VV] NSPS FOR EQUIPMENT LEAKS OF VOC IN THE SYNTHETIC ORGANIC CHEMICALS MANUFACTURING INDUSTRY

The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 60, Subpart VV, including the following sections briefly summarized:

60.482-1(b) and (d)	*Standards-General*: Compliance is determined by review of records, reports, review of performance test results and inspections. Exemptions for equipment in vacuum service.
60.482-1(c)	Equivalence of means of emissions limitation.
60.482-1(d)	Equipment in vacuum service exemption
60.482-1(e)	Exemption for nominal usage in VOC service.
60.482-1(f)	Alternate frequency for batch process units.
60.482-1(g)	Assignments for storage vessels shared with multiple units.
60.482-2(a), (b) and (c)	*Standards-Pumps in Light Liquid Service*: Visually check pumps weekly for indications of leaks. Monitor pumps monthly according to Method 21 for leaks of 10,000 ppm or greater. First attempt at repair shall be made within 5 days and repaired no later than 15 days. If indications of liquids dripping from pump, monitor according to Method 21 within 5 days or designate as a leak. Defines first attempt at repair.
60.482-2(d) through (h)	Exemptions for certain types of pumps meeting specific requirements.
60.482-3(a) through (g)	*Standards-Compressors*: Each compressor shall be equipped with a seal system that includes a barrier fluid system. Each barrier fluid system (see 60.482-3(b)&(c)) shall be equipped with a sensor that will detect failure of the seal system, barrier fluid or both, checked daily or equipped with an audible alarm. Determine criterion that indicates failure of the seal system, barrier fluid, or both. If sensor indicates failure of the seal system, barrier system or both, a leak is detected. First attempt at repair shall be made within 5 days and repaired no later than 15 days.
60.482-3(h), (i) and (j)	*Standards-Compressors*: Exemptions for certain types of compressors meeting specific requirements.
60.482-4(a) and (b)	*Standards-Pressure Relief Devices in Gas/Vapor Service*: They shall be operated with no detectable emissions (<500 ppm above background). Within 5 days after a pressure release, the device must be remonitored to confirm conditions

	of no detectable emissions. First attempt at repair shall be made within 5 days and repaired no later than 15 days.
60.482-4(c) and (d)	*Standards-Pressure Relief Devices in Gas/Vapor Service*: Exemptions for certain types of pressure relief devices meeting specific requirements.
60.482-5(a) through (c)	*Standards-Sampling Connection Systems*: each sampling connection system shall be equipped with a closed- purged, closed-loop or closed-vent system and shall comply with the requirements of 60.482-5(b). In situ sampling systems and sampling systems without purges are exempt from the above.
60.482-6(a) through (e)	*Standards-Open-Ended Valves or Lines*
60.482-7(a) through (h)	*Standards-Valves in Gas/Vapor Service in Light Liquid Service*: Valves are monitored monthly to detect leaks (>10,000 ppm). First attempt at repair shall be made within 5 days and repaired no later than 15 days. If a leak is detected, the valve is monitored monthly until a leak is not detected for 2 successive months. See 60.482-7(f)-(h) for information regarding valves with no detectable emissions, unsafe-to-monitor or difficult-to-monitor valves.
60.482-8(a) through (d)	*Standards-Pumps and Valves in Heavy Liquid Service, Pressure Relief Devices in Light Liquid or Heavy Liquid Service, and Connectors*: Evidence of a leak is found by visual, audible, olfactory or other detection methods. The equipment shall be monitored within 5 days using Method 21 for leaks (>10,000 ppm). First attempt at repair shall be made within 5 days and repaired no later than 15 days.
60.482-9(a) through (e)	*Standards-Delay of Repair*: Delay of repair of equipment with leaks is allowed if repair within 15 days is infeasible without a process shutdown. Requirements for delay of repair of equipment not in VOC service; valves; pumps and beyond a process unit shutdown.
60.482-10(a) through (h) and (m)	*Standards-Closed Vent Systems and Control Devices*: Vapor recovery systems shall have a VOC recovery efficiency of 95% or greater, or to an exit concentration of 20 ppmv; enclosed combustion devices shall have an efficiency of 95% or greater, or to an exit concentration of 20 ppmv, dry basis, corrected to 3% oxygen or provide a minimum residence time of 0.75 seconds at minimum temperature of 816ºC. Flares will comply with requirements of 60.18. Leaks (>500 ppmv above background) shall have a first attempt at repair made

	within 5 days and repaired no later than 15 days. Requirements for leaks, annual inspections, delay of repair.
60.482-10(i) through (l)	*Standards-Closed Vent Systems and Control Devices*: Exemptions for certain types of vapor collection systems meeting specific requirements and the recordkeeping requirements for exempt closed vent systems.
60.483-1 and 60.483-2	*Alternative Standards for Valves*: Allowable Percentage of Valves Leaking and for Valves-Skip Period Leak Detection and Repair
60.486(a)	*Recordkeeping Requirements:* Combined records for affected facilities.
60.486(b) and (c)	Identification and log for leaks from pumps, compressors, valves and connectors.
60.486(d)	Records of design requirements for closed vent systems and control devices.
60.486(e)	Log for equipment subject to 60.482-1 through 60.482-10.
60.486(f)	Records for pumps and valves that are unsafe-to-monitor and valves that are difficult-to-monitor.
60.486(g)	Records for valve skip period leak detection and repair.
60.486(h)	Log for pumps with dual mechanical seal systems and for compressor seal systems.

(3) [OAC rule 3745-21-09(T)] LEAKS FROM PETROLEUM REFINERY EQUIPMENT (PUMP SEALS, PIPELINE VALVES, PROCESS DRAINS, COMPRESSOR SEALS AND PRESSURE RELIEF DEVICES)

a. [OAC 3745-21-09(T)(1)(a)]
Except as otherwise indicated in OAC 3745-21-09(T)(1)(b) of this rule, a monitoring program shall be developed and implemented which incorporates the following provisions:

i. Yearly monitoring of all pump seals, pipeline valves in liquid service and process drains in accordance with the method specified in paragraph (F) of rule 3745-21-10 of the Administrative Code;

ii. Quarterly monitoring of all compressor seals, pipeline valves in gas service and pressure relief valves in gas service in accordance with the method specified in paragraph (F) of rule 3745-21-10 of the Administrative Code;

iii. Monthly monitoring of all pump seals by visual methods;

iv. Monitoring of any pump seal in accordance with the method specified in paragraph (F) of rule 3745-21-10 of the Administrative Code within five working days after any liquids are observed dripping from the seal;

v. Monitoring of any relief valve in accordance with the method specified in paragraph (F) of rule 3745-21-10 of the Administrative Code within five working days after the valve has vented to the atmosphere; and

vi. Monitoring of any component in accordance with the method specified in paragraph (F) of rule 3745-21-10 of the Administrative Code within five working days after the repair of a leak.

b. [OAC 3745-21-09(T)(1)(b)]
Pressure relief devices which are connected to an operating flare header, vapor recovery devices, valves which are located in pipelines containing kerosene or heavier liquids, storage tank valves and valves which are not externally regulated are exempt from the monitoring requirements contained in OAC 3745-21-09(T)(1)(a) of this rule.

c. [OAC 3745-21-09(T)(1)(c)]
For any pipeline or pressure relief valves in gas or liquid service, an alternative monitoring schedule may be employed in lieu of the monitoring schedule specified in OAC 3745-21-09(T)(1)(a) of this rule, as follows:

i. The valve is designated as difficult to monitor and is monitored each calendar year, provided the following conditions are met:

(a) Construction of the process unit commenced prior to March 27, 1981;

(b) The permittee of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than six feet above a support surface; and

(c) The permittee of the valve 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 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 monitoring on a quarterly or yearly basis as specified in 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 practical during process unit turnarounds and other safe to monitor times.

d. [OAC rule 3745-21-09(T)(1)(d)]
All pipeline valves in gas service and 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 and to the Director.

e. [OAC rule 3745-21-09(T)(1)(e)]
If a leak is identified as a result of the monitoring program required by OAC3745-21-09(T)(1)(a) of this rule and the concentration of volatile organic compounds exceeds ten thousand parts per million by volume, a tag shall immediately be placed on the leaking component. The tag shall be readily visible and weatherproof; it shall bear an identification 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. [OAC 3745-21-09(T)(f)]
A monitoring log shall be maintained for all leaking components which are tagged in accordance with OAC 3745-21-09(T)(1)(e) of this rule. The monitoring 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 (such as valve, seal, or other component);

iii. The tag number of the leaking component;

iv. The date on which the leaking component was detected;

v. The date on which the leaking component was repaired;

vi. The date and results of the monitoring performed within five working days after the leaking component was repaired;

vii. A record of the calibration of the monitoring instrument;

viii. A list of those leaking components which cannot be repaired until the next process unit turnaround; and

ix. The total number of components monitored and the total number of components found leaking during the calendar year.

g. [OAC 3745-21-09(T)(1)(g)]
A copy of any monitoring log shall be retained by the permittee for a minimum of five years after the date on which the record was made or the report was prepared.

h. [OAC 3745-21-09(T)(1)(h)]
A copy of any monitoring log shall immediately be made available to the Director or an authorized representative of the Director, upon verbal or written request, at any reasonable time.

i. [OAC rule 3745-21-09(T)(2)]
Any permittee of a petroleum refinery shall repair and retest any leaking component, which is tagged and identified in accordance with paragraph b. of this section, as soon as possible but no later than fifteen days after the leak is found unless the leaking component cannot be repaired until a process unit turnaround occurs.

j. [OAC rule 3745-21-09(T)(3)]
The Director may require a process unit turnaround to occur earlier than the normally scheduled date if the number and severity of leaking components awaiting a turnaround warrant such action. Any such process unit turnaround shall be required by means of an order issued by the Director to the permittee of the petroleum refinery pursuant to division (R) of section 3704.03 of the Ohio Revised Code.

k. [OAC rule 3745-21-09(T)(4)] ALTERNATIVE MONITORING, RECORDKEEPING AND REPORTING
The Director may accept an alternative monitoring, recordkeeping and reporting program for that required by OAC 3745-21-09(T)(1) of this rule if the permittee of a petroleum refinery can demonstrate to the satisfaction of the Director that the alternative program is at least as effective in identifying, documenting and reporting leaks from petroleum refinery equipment as the program outlined in this permit. For purposes of this paragraph, any proposed alternative program which the Director finds comparable to the requirements of paragraph (DD)(12) or (DD)(13) of OAC rule 3745-21-09 shall be acceptable to the Director.

NOTE: The Toledo Refining Co. Refinery received an alternative monitoring program approval from Ohio EPA (Bill Juris) in 1996 under OAC 3745-21-09(T). The proposed alternative monitoring plan (see b)(2)e.) is as follows:

i. Affected Sources:
Pipeline valves in gas service and pressure relief valves in gas service that are not designated as difficult, inaccessible, or unsafe to monitor under OAC rule 3745-21-09(T)(1)(c).

ii. Alternative Program:
The permittee shall monitor the affected sources quarterly and repair leaks that are recorded to be in excess of 10,000 ppm as measured by the method specified in OAC rule 3745-21-10 within 5 days. Once two quarters are recorded in which leak percentage is below 2%, the permittee may skip one quarterly monitoring period. Once five consecutive quarters are recorded in which the percentage leaking is below 2%, the permittee may skip up to three quarterly monitoring periods. If the percentage leaking goes above 2%, the permittee will return to the monitoring specified in OAC rule 3745-21-09(T)(1)(a)(ii), but may again return to the alternative program when the leak percentage falls below 2%.

iii. Notification
The permittee may begin implementation of the alternative program upon written notification to Toledo Environmental Services.

iv. Calculation of Percent Leaking
The percentage leaking shall be conducted on a refinery-wide basis by comparing the total number of affected sources monitored with the sum of the affected sources leaking and the affected sources that have been placed on shutdown.

v. Recordkeeping and Reporting
The permittee shall submit reports as specified in OAC rule 3745-21-09(T)(1)(i). The permittee shall maintain records on site which show the percentage of valves leaking. These records will be made available to the Director upon request.

vi. Equivalency with OAC rule 3745-21-09(T)(1)(a)(ii)
This program is equivalent to OAC rule 3745-21-09(DD)(12), which has been determine to be acceptable to the Director as stated in OAC rule 3745-21-09(T)(4).

ENHANCED LDAR PROGRAM AS REQUIRED BY CONSENT DECREE (CD) - Date of Entry, March 14, 2006

(4) [CD, section N.78. and PTI P0108943] WRITTEN REFINERY-WIDE LDAR PROGRAM and COMPLIANCE CERTIFICATION.
Enhanced LDAR Program Description: The permittee shall develop a written description of a refinery-wide program designed to achieve and maintain compliance with all applicable federal and state LDAR regulations, as well as all requirements imposed by Section N. The permittee shall update each Refinery's program description as necessary to ensure continuing compliance. The permittee shall maintain an updated version of that Refinery's program description. Until the Date of Termination, the permittee shall use the enhanced LDAR program descriptions prepared pursuant to this Paragraph to implement an enhanced LDAR program at each Refinery, as required by this Section V.N. The Refinery's program description shall include at a minimum:

a. A set of refinery-specific leak rate goals that will be a target for achievement on process-unit-by-process-unit basis;

b. An identification of all equipment in light liquid and/or in gas/vapor service that has the potential to leak VOCs, HAPs, VHAPs, and benzene within process units that are owned and maintained at each Refinery;

c. Procedures for identifying leaking equipment within process units that are owned and maintained at each Refinery;

d. Procedures for repairing and keeping track of leaking equipment;

e. Procedures for identifying and including in the LDAR program new equipment;

f. A process for evaluating new and replacement equipment to promote consideration and installation of equipment that will minimize leaks and/or eliminate chronic leakers;

g. A designation of the “LDAR Personnel” and the “LDAR Coordinator” who are responsible for implementing the enhanced LDAR program at the Refinery; and

h. Procedures designed to ensure that components subject to LDAR requirements that are added to the Refinery during scheduled maintenance and construction activities are integrated into the enhanced LDAR program.

(5) [CD, section N.79. and PTI P0108943] TRAINING
The Permittee shall implement a training program that includes the following features:

a. Any person assigned LDAR program responsibilities at a Refinery shall be given initial training as described by this Paragraph 79 before performing any LDAR work;

b. For any of the permittee's employees assigned LDAR responsibilities as a primary job function (such as monitoring technicians, database users, QA/QC personnel, and the LDAR Coordinator), the Permittee shall provide and require completion of annual LDAR training (on an initial and recurrent basis);

c. For all other of the permittee's operations and maintenance personnel, the permittee shall provide and require completion of annual training (on an initial and recurrent basis) on aspects of LDAR that are relevant to the person’s duties; and

d. For contract employees who perform LDAR work, the permittee shall either provide those personnel annual training (on an initial and recurrent basis) as described by this Paragraph 79, or shall require that the contractor provides annual training (on an initial and recurrent basis) as described by this Paragraph.

(6) [CD, section N.80. and PTI P0108943] LDAR AUDITS

a. [CD, section N.80.b.] The permittee shall implement, the refinery-wide audits set forth in Paragraphs 80.c and 80.d (of the consent decree) to ensure the Refinery’s compliance with all applicable LDAR requirements. The permittee's LDAR audits shall include, at a minimum:

i. performing comparative monitoring;

ii. reviewing records to ensure that monitoring and repairs have been completed in the required time frames;

iii. reviewing component identification procedures and data management procedures; and

iv. observing LDAR technicians' calibration and monitoring techniques.

To ensure that an audit at the Refinery occurs every two years, third-party audits required by Paragraph 80.c and the internal audits required by Paragraph 80.d (of the consent decree) shall be separated by two (2) years. As an alternative to the internal audits required by Paragraph 80.d. of the consent decree, the permittee may elect to retain third-parties to undertake these audits, provided that an audit of the Refinery occurs every two (2) years. For each audit conducted under Paragraph 80.c. or d. of the consent decree, the permittee shall require the auditors to prepare a written audit report describing the audit's scope and findings.

b. [CD, section N.80.c.] Third-Party Audits.
The permittee shall retain a contractor(s) to perform a third-party audit of the Refinery's LDAR program at least once every four (4) years.

c. [CD, section N.80.d.] Internal Audits.
The permittee shall conduct internal audits of the Refinery's LDAR program by sending personnel familiar with the LDAR program and its requirements from one or more of the permittee's refineries or locations to audit another Toledo Refining Co. Refinery. The permittee shall complete the first round of these internal LDAR audits by no later than two (2) years from the date of the completion of the initial third-party audit required in Paragraph 80.a. of the consent decree. Internal audits at the Refinery shall be held every four (4) years thereafter until the Date of Termination unless the permittee elects to retain third parties to conduct these audits pursuant to Paragraph 80.c. of the consent decree.

(7) [CD, section N.81. and PTI P0108943] ACTIONS NECESSARY TO CORRECT NONCOMPLIANCE.
If the results of any of the audits conducted pursuant to Paragraph 80 of the consent decree at the Refinery identifies any areas of noncompliance, The permittee shall implement, as soon as practicable, all steps necessary to correct the area(s) of noncompliance, and to prevent, to the extent practicable, a recurrence of the cause of the noncompliance. Until the Date of Termination, the permittee shall retain the audit reports for all audits conducted pursuant to Paragraphs 80.c. and d. of the consent decree and shall maintain a written record of the corrective actions that the permittee takes at each Refinery in response to any deficiencies identified in any audits. In the semiannual report submitted, the permittee shall submit the audit reports and corrective action records for audits performed and actions taken during the previous calendar year.

(8) [CD, section N.82. and PTI P0108943] INTERNAL LEAK DEFINITION FOR VALVES and PUMPS
The permittee shall utilize the following internal leak definitions for valves and pumps in light liquid and/or gas/vapor service, unless other permit(s), regulations, or laws require the use of lower leak definitions.

a. <u>Leak Definition for Valves</u>.
The permittee shall utilize an internal leak definition of 500 ppm VOCs for all the Refineries' valves, excluding pressure relief devices.

b. Leak Definition for Pumps.
The permittee shall utilize an internal leak definition of 2000 ppm for its Refineries' pumps.

(9) [CD, section N.83. and PTI P0108943] REPORTING, RECORDING, TRACKING, REPAIRING and REMONITORING LEAKS of VALVES and PUMPS BASE on the INTERNAL LEAK DEFINITIONS

a. Reporting.
For regulatory reporting purposes, the permittee may continue to report leak rates in valves and pumps against the applicable regulatory leak definition, or may use the lower, internal leak definitions specified in Paragraph 82. of the consent decree.

b. Recording, Tracking, Repairing and Remonitoring Leaks.
The permittee shall record, track, repair, and remonitor all leaks above the internal leak definitions specified by Paragraph 82. of the consent decree (at such time as those definitions become applicable). For any component leaking above the applicable regulatory leak rate, the permittee shall repair and remonitor the component or place the component on a "delay of repair" list as required by the applicable regulations and Paragraph 90. For any component leaking above the internal leak definitions specified by Paragraph 82 of the consent decree but below the applicable regulatory leak rate, the permittee shall make an initial attempt at repair and remonitor the component within five (5) calendar days, and shall complete repairs and remonitor the component or place the component on a "delay of repair" list according to Paragraph 90 of the consent decree within 30 calendar days.

(10) [CD, section N.84. and PTI P0108943] LDAR MONITORING FREQUENCY

a. Pumps.
The permittee shall monitor pumps at the lower leak definition established by Paragraph 82.b. on a monthly basis, unless more frequent monitoring is required by a federal, state, or local regulation.

b. Valves.
The permittee shall implement a program to monitor valves at the lower leak definition established by Paragraph 82.a. of the consent decree on a quarterly basis, unless more frequent monitoring is required by a federal, state, or local regulation.

(11) [CD, section N.85. and PTI P0108943] FIRST ATTEMPT AT REPAIRS ON VALVES
The permittee shall make a "first attempt at repair" within one (1) calendar day on any valve that has a reading greater than 200 ppm of VOCs and that LDAR personnel are authorized to repair. The permittee or its designated contractor shall remonitor all valves no later than the next calendar day at that Refinery where LDAR personnel made a "first attempt at repair." If the re-monitored leak reading is greater than the applicable leak definition, the permittee may delay further repairs up to five (5) days after initial identification in order to assess the persistence of the leak by re-monitoring again. If the re-monitored leak reading is below the applicable leak definition, no further action will be

necessary. If the re-monitored leak reading is greater than the applicable leak definition, the permittee shall repair the valve according to the requirements of Paragraph 83.b. of the consent decree, except that no first repair attempt requirement shall apply.

(12) [CD, section N.86. and PTI P0108943] ELECTRONIC MONITORING, STORING, and REPORTING of LDAR DATA

a. Electronic Storing and Reporting of LDAR Data.
At the Refinery, The permittee will develop or continue to maintain an electronic database for storing and reporting LDAR data.

b. Electronic Data Collection During LDAR Monitoring and Transfer Thereafter.
The permittee shall make maximum possible use of data loggers and/or other electronic data collection devices for all data collection during all LDAR monitoring. The permittee shall ensure that the responsible The permittee employees or contractor personnel shall transfer, on a daily basis, electronic data from electronic data logging devices to the electronic database required by Paragraph 86.a. of the consent decree. For all monitoring events in which an electronic data collection device is used, the collected monitoring data shall include an accurate time and date stamp for each monitoring event, the monitoring reading, and identifying information on the operator and the instrument used in the monitored event. The permittee may use paper logs where necessary or more feasible (e.g., small rounds, remonitoring, or when data loggers are not available or broken), and shall record, at a minimum, the identification of the technician undertaking the monitoring, the date, daily start and end times for the monitoring conducted, each monitoring reading, and the identification of the monitoring equipment. The permittee shall transfer any manually recorded monitoring data to the electronic database required by Paragraph 86.a. of the consent decree within seven (7) days of monitoring.

(13) [CD, section N.87. and PTI P0108943] QA/QC of LDAR DATA

a. The permittee, or a third-party contractor retained by the permittee, shall develop and implement a procedure at the Refinery to ensure a quality assurance/quality control ("QA/QC") review of all data generated by LDAR monitoring technicians.

i. The permittee shall ensure that monitoring data provided to the permittee by its contractors is reviewed for QA/QC before the contractor submits the data to the permittee.

ii. At least once per calendar quarter, the permittee shall perform QA/QC of any contractor's monitoring data which shall include, but not be limited to: number of components monitored per technician, time between monitoring events, and abnormal data patterns.

iii. The permittee shall implement a system for daily reporting of monitored activity and for periodically reviewing the daily results by appropriate operating supervisors.

(14) [CD, section N.88. and PTI P0108943] LDAR PERSONNEL
The permittee shall establish a program that will hold LDAR personnel accountable for LDAR performance. The permittee shall establish and maintain an LDAR Coordinator position within each Refinery, responsible for LDAR management, with the authority to implement improvements.

(15) [CD, section N.89. and PTI P0108943] CALIBRATION/CALIBRATION DRIFT ASSESSMENT

a. Calibration.
The permittee shall conduct all calibrations of LDAR monitoring equipment at each Refinery in accordance with 40 C.F.R. Part 60, EPA Reference Test Method 21.

b. Calibration Drift Assessment.
The permittee shall conduct calibration drift assessments of LDAR monitoring equipment at the end of each monitoring shift, at a minimum. The permittee shall conduct the calibration drift assessment using, at a minimum, a calibration gas corresponding to the applicable leak threshold. If any calibration drift assessment after the initial calibration shows a negative drift of more than 10% from the previous calibration, the permittee shall remonitor all valves that were monitored since the last calibration that had a reading greater than 100 ppm and shall remonitor all pumps that were monitored since the last calibration that had a reading greater than 500 ppm

c. The permittee shall maintain records of all instrument calibrations for a period of one year after performing the calibrations.

(16) [CD, section N.90. and PTI P0108943] DELAY of REPAIR and REQUIRED REPAIRS

a. The permittee shall comply with the provisions of Paragraph 90 of the consent decree at the Refinery.

b. Delay of Repair.
For any equipment that the permittee is allowed under the applicable regulations to place on the “delay of repair” list for repair, the permittee shall:

i. Require sign-off by the appropriate operating supervisor (which position will be identified in the Refinery’s written enhanced LDAR program description) that the valve or pump is eligible for inclusion on the “delay of repair” list; and

ii. Include any valve or pump that is placed on the “delay of repair” list in the permittee’s regular LDAR monitoring.

c. Required Repairs on Leaking Valves

i. For valves, other than control valves, leaking at a rate of 10,000 ppm or greater and which cannot be repaired using traditional techniques, the permittee shall use the “drill and tap” or similarly effective method to

repair the leaking valve, rather than placing the valve on the "delay of repair" list, unless the permittee can demonstrate that there is a safety, mechanical, or major environmental concern posed by repairing the leak in that manner. If not repaired within fifteen (15) days by other means, the permittee shall make the first "drill and tap" or similarly effective repair attempt within fifteen (15) days after the leak was identified, and shall have 45 days after the leak was identified to complete the repair attempts.

ii. For valves other than control valves or pressure relief valves leaking at a rate of 50,000 ppm or greater, the permittee shall use the "drill and tap" or similarly effective method to repair the leaking valve, rather than placing the valve on the "delay of repair" list, unless the permittee can demonstrate that there is a safety, mechanical, or major environmental concern posed by repairing the leak in that manner. If not repaired within fifteen (15) days by other means, the permittee shall make the first "drill and tap" or similarly effective repair attempt within fifteen (15) days after the leak was identified, and shall have 21 days after the leak was identified to complete the repair attempts.

iii. After two unsuccessful attempts to repair a leaking valve through the "drill and tap" or similarly effective repair method, the permittee may place the leaking valve on its "delay of repair" list. The permittee shall inform EPA of any similarly effective repair methods (alternate repair methods to "drill and tap") used to comply with Paragraphs 90.c.i or 90.c.ii of the consent decree.

(17) [CD, section N.91. and PTI 0106143] CHRONIC LEAKER PROGRAM
The permittee shall replace, repack, or perform similarly effective repairs on all "chronic leaker" non-control valves during the next process unit turnaround. A component shall be classified as a "chronic leaker" under Paragraph 91 if it leaks above 5000 ppm twice in any consecutive four (4) calendar quarters, unless the component has not leaked in the six (6) consecutive calendar quarters prior to the relevant process unit turnaround.

(18) [CD, section N.92. and PTI P0108943] RECORDKEEPING and REPORTING REQUIREMENTS OF THIS SECTION

a. Outside of the reports required under 40 C.F.R. 63.655 and the progress report procedures of Section IX of the consent decree, no later than 30 days after completion of the development of the written refinery-wide enhanced LDAR program descriptions that the permittee develops pursuant to Paragraph 78 of the consent decree, the permittee shall submit a copy of each Covered Refinery's program description to the Relevant Government Agencies.

b. Consistent with the requirements of Section IX of the consent decree, at the later of: (i) the first progress report due under the consent decree; or (ii) the first progress report in which the requirement becomes due, the permittee shall include the following:

i. A certification of the implementation of the "first attempt at repair" program under Paragraph 85 of the consent decree;

ii. A certification of the implementation of QA/QC procedures for review of data generated by LDAR technicians as required by Paragraph 87 of the consent decree;

iii. An identification of the LDAR Coordinator at each Refinery responsible for LDAR performance as required by Paragraph 88 of the consent decree;

iv. A certification of the implementation of the calibration drift assessment procedures of Paragraph 89 of the consent decree;

v. A certification of the implementation of the "delay of repair" procedures of Paragraph 90 of the consent decree; and

vi. A certification of the implementation of the internal leak definition and monitoring frequency procedures under Paragraphs 82 and 84 of the consent decree.

(19) [40 CFR 60, Subpart GGG] EQUIPMENT LEAKS OF VOC IN PETROLEUM REFINERIES
The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 60, Subpart GGG, including the following sections briefly summarized:

60.592(a)	*Standards*: Comply with the requirements of 40 CFR 60.482-1 to 60.482-10 of Subpart VV.
60.592(b)	Alternative Requirements - the permittee may elect to comply with the requirements of 40 CFR 60.483-1 and 60.483-2.
60.592(c)	Requirements if the permittee wants to apply for any means of emission limitation that is equivalent to the reduction in emissions of VOC achieved by the controls required in this subpart.
60.592(d)	Comply with the provisions of 60.485 except as provided in 60.593.
60.592(e)	Comply with the provisions of 40 CFR 60.486 and 60.487
60.593(a)	*Exemptions*: The permittee may comply with the following exceptions to the provisions of subpart VV.
63.593(b)	Exemptions for compressors demonstrated to be "in hydrogen service".
60.593(c)	Exemptions are listed for existing reciprocating compressors provided the permittee demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance.

60.539(d)	The permittee may use the following provision in addition to 60.485(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150 °C as determined by ASTM Method D86–78, 82, 90, 95, or 96 (incorporated by reference as specified in 60.17).

(20) [40 CFR 63, Subpart H] NESHAP FROM PETROLEUM REFINERIES FOR ORGANIC HAZARDOUS AIR POLLUTANTS FOR EQUIPMENT LEAKS
The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, Subpart H, including the following sections briefly summarized:

63.162	*General Standards:*
63.162(a)	How compliance is demonstrated.
63.162(c)	Identifying affected equipment.
63.162(d) and (e)	Exemptions for equipment in vacuum service or in organic HAP service less than 300 hours per calendar year.
63.162(f)	Identifying leaking equipment.
63.162(h)	Failure to repair leaks.
63.163	*Standards: Pumps in light liquid service*
63.163(a) through (d)	Detecting pump leaks.
63.163(e), (f), (g), (h), (j) and (i)	Exemptions from detecting pump leaks.
63.164	*Standards: Compressors*
63.164(a) through (f)	Compressor seal barrier fluid system requirements.
63.164(g)	Detecting compressor leaks.
63.164(h) and (i)	Exemptions from detecting compressor leaks.
63.165	*Standards: Pressure Relief Devices in Gas/Vapor Service*
63.165(a) and (b)	Requirements for pressure relief devices in gas/vapor service.
63.165(c) and (d)	Exemptions from detecting pressure relief devices in gas/vapor service leaks.
63.166(a) through (c	*Standards:* : *Pressure Relief Devices in Gas/Vapor Service* Requirements for sampling connection system requirements.

63.167	*Standards: Open-ended Valves or Lines*
63.167(a) through (c)	Requirements for open-ended valves or lines.
63.167(d) and (e)	Exemptions from detecting leaks on open-ended valves or lines.
63.168	*Standards: Valves in Gas/Vapor Service and in Light Liquid Service*
63.168(a), (d), and (e)	Requirements for monitoring valves in gas/vapor service and in light liquid service for leaks and monitoring frequency.
63.168(f) and (g)	Time intervals for repairing leaks.
63.168(h) and (i)	Exemptions for detecting leaks on valves in gas/vapor service and in light liquid service.
63.169(a) through (d)	*Standards: Pumps, Valves, Connectors, and Agitator's in Heavy Liquid Service; Instrumentation systems; and Pressure Relief Devices in Liquid Service* Determining monitoring intervals, leak detection and repair requirements for pumps, valves, connectors, and agitators in heavy liquid service; instrumentation systems; and pressure relief devices in liquid service.
63.170	*Standards: Surge Control Vessels and Bottom Receivers*. Requirements for surge control vessels and bottoms receivers.
63.171(a) through (e)	*Standards: Delay of Repair* Requirements for delay of repair of equipment with equipment leaks.
63.172	*Standards: Closed Vent Systems and Control Devices*
63.172(a) through (g)	Requirements for closed-vent systems and control devices (i.e., flares shall comply with the requirements of 40 CFR 63.11) including monitoring frequency and visual inspections.
63.172(h)	Leaks are indicated by an instrument reading ≥ 500 ppm above background or by visual inspections. If a leak is detected, repair it within 15 days; first attempt at repair shall be made within 5 days.
63.172(i)	Requirements for delay of repair of equipment with equipment leaks

63.172(j)	Requirements for closed-vent systems with bypass lines.
63.172(k) and (l)	Exemptions for detecting leaks on closed vent systems and control devices.
63.172(m)	If organic HAPs are vented to a closed vent system or control device, such system or control device must be operating.
63.173	*Standards: Agitators in gas/vapor service and in light liquid service*
63.173(a) through (c)	Determining monitoring intervals, leak detection and repair requirements for agitators in gas/vapor service and in light liquid service.
63.173(d) through (j)	Exemptions for detecting leaks on agitators in gas/vapor service and in light liquid service.
63.174	*Standards: Connectors in Gas/Vapor Service and in Light Liquid Service*
63.174(a) through (d)	Determining monitoring intervals, leak detection and repair requirements for connectors in gas/vapor service and in light liquid service.
63.174(f) through (h)	Exemptions for detecting leaks on connectors in gas/vapor service in light liquid service.
63.174(i)	Determining monitoring frequency based on the percent of leaking connectors.
63.174(j)	Optional credit for removed connectors.
63.176(a) through (d)	*Quality Improvement Program for Pumps* Requirements for establishing a quality improvement program for pumps.
63.181	*Recordkeeping Requirements*
63.181(a)	Conditions for establishing compliance utilizing one recordkeeping system for multiple emission units. All records and information required shall be maintained in a manner that can be readily accessed at the plant site.
63.181(b)	Requires a list of identification numbers for equipment subject to this Subpart and a list of equipment equipped with a closed-vent system and control device.
63.181(c)	Records required for visual inspections of equipment.

63.181(d), (e) and (f)	Required records for each leak and its associated repair; batch product process and compressors.
63.181(g)	Required records regarding the closed-vent system and control device.
63.181(h)	Required records pertaining to Quality Improvement Program for valves and/or pumps, if applicable.
63.181(i)	Required information pertaining to equipment in heavy liquid service.
63.181(j)	Requirements for identification, of equipment in organic HAP service less than 300 hours per year within a process unit.
63.181(k)	Requirements for recordkeeping if the permittee complies with the requirements of 63.179, “Alternative means of emission limitation: Enclosed-vented process units”.

e) Reporting Requirements

(1) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES

The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 63, Subpart CC, including the following sections briefly summarized:

63.655(d)	Submit reports as required by 40 CFR 60.487 of Subpart VV or submit reports as required by 40 CFR 63.182 of Subpart H, except as provided in 63.655(d).
63.655(f)	Any changes to the initial content of Notification of Compliance Status report as required in 63.655(f)(1)(v)

(2) [40 CFR 60, Subpart VV] NSPS FOR EQUIPMENT LEAKS OF VOC IN THE SYNTHETIC ORGANIC CHEMICALS MANUFACTURING INDUSTRY

The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 60, Subpart VV, including the following sections briefly summarized:

60.487(c) and (e)	Submit semiannual reports that includes the content of 60.487(c). Submit the results of all performance tests in accordance with 60.8, if applicable.
60.487(d)	If applicable, report if complying with the alternative provisions of 60.483-1 and 60.483-2.

(3) [OAC 3745-21-09(T)] REPORTING REQUIREMENTS FOR PETROLEUM REFINERY EQUIPMENT LEAKS OF VOCs FROM PUMP SEALS, PIPELINE VALVES, PROCESS DRAINS, COMPRESSOR SEALS AND PRESSURE RELIEF DEVICES

[OAC 3745-21-09(T)(1)(i)] A report shall be submitted to the Director by the fifteenth 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 fifteen days and identifies all leaking components which cannot be repaired until the next process unit turnaround.

(4) [CD, section N.92.c. and PTI 0106143] REPORTING REQUIREMENTS OF THIS SECTION of the CONSENT DECREE

a. Semiannual reports due under 40 CFR 63.655. In the first semiannual report of each calendar year required under 40 CFR 63.655, The permittee shall identify each audit that was conducted pursuant to the requirements of Paragraph 80 of the consent decree in the previous calendar year including, an identification of the auditors, a summary of the audit results, and a summary of the actions that the permittee took or intend to take to correct all deficiencies identified in the audits. In each semiannual report due under 40 CFR 63.655, The permittee shall include:

i. <u>Training</u>.
Information identifying the measures that the permittee took to comply with the provisions of Paragraph 79 of the consent decree; and

ii. <u>Monitoring</u>.
The following information on LDAR monitoring:

(a) a list of the process units monitored during the quarter;

(b) the number of valves and pumps monitored in each process unit;

(c) the number of valves and pumps found leaking;

(d) the number of components not fixed within 30 days or placed on the delay of repair list;

(e) the number of first repair attempts not completed within five (5) days;

(f) the number of first attempts not performed within one (1) day according to Paragraph 85 of the consent decree;

(g) the number of “difficult to monitor” pieces of equipment monitored;

(h) number of all chronic leakers not repaired during the prior turnaround; and

(i) a list of all equipment currently on the “delay of repair” list and the date each component was placed on the list; and the number of repair attempts not completed according to the time frames in Paragraph 90 of the consent decree.

(5) [40 CFR 63, Subpart H] NESHAP FROM PETROLEUM REFINERIES FOR ORGANIC HAZARDOUS AIR POLLUTANTS FOR EQUIPMENT LEAKS
The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 63, Subpart H, including the following sections briefly summarized:

63.182(d)	Periodic Reports - submit semiannual periodic reports of the required information in 63.182(d)(1), (d)(2), (d)(3) and (d)(4), if applicable.

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

VOC emissions from facility-wide fugitive equipment leaks shall not exceed 385.43 tons per year per rolling 12-month summation of the monthly emissions.

Applicable Compliance Method:

The facility-wide potential to emit (PTE) fugitive emissions are based upon the sum of PTE fugitive emissions from components in each emissions unit at the facility. These components include all valves, pumps, pressure relief valves, connectors, open-ended lines and sampling connections in regulated service at the facility. The fugitive emissions are calculated using the facility component count, component service type, and the petroleum industry screening value correlations.

Fugitive emission rates are calculated utilizing Tables 2-10 "Petroleum Industry Leak Rate/Screening Value Correlations"; 2-12 "Default-Zero Values: Petroleum Industry" and 2-14 "10,000 ppmv and 100,000 ppmv Screening Value Pegged Emission Rates for the Petroleum Industry" as listed in "Protocol for Equipment Leak Emission Estimates" (EPA-453/R-95-017). Use of "Default Zero Values"

can only be used for non-detectable screening values as measured by a portable monitoring device having a minimum detection limit of greater than 1 ppmv.

The equipment service/type (gas/vapor, light liquid and heavy liquid service) for each component is determined according to the definitions contained in 40 CFR Part 63, Subpart CC for equipment in organic HAP service. For equipment not in organic HAP service, the equipment service/type (gas/vapor, light liquid and heavy liquid service) is determined according to the following definitions.

In gas/vapor service means that the piece of equipment contains or contacts process fluid that is in the gaseous state at the operating conditions.

In heavy liquid service means that the piece of equipment is not in gas/vapor service or in light liquid service.

In light liquid service means that the piece of equipment contains or contacts process fluid that meets the conditions specified in paragraph (O)(3) of OAC rule 3745-21-10.

The fugitive emissions shall be calculated by multiplying all components in a given service type by the respective leak emission rates as listed in the tables of "Protocol for Equipment Leak Emission Estimates" (EPA-453/R-95-017) and then converted to tons per year. The total facility-wide VOC emissions from fugitive equipment leaks is the sum of emissions from all components at the facility.

(2) [40 CFR 60, Subpart VV] NSPS FOR EQUIPMENT LEAKS OF VOC IN THE SYNTHETIC ORGANIC CHEMICALS MANUFACTURING INDUSTRY

The permittee shall comply with the applicable testing requirements required in 40 CFR Part 60, Subpart VV, including the following sections briefly summarized:

60.485(a)	For tests, use the reference methods and procedures in Appendix A of this part, except as provided in 40 CFR 60.8(b).
60.485(b)	Determine compliance with the standards in 60.482, 60.483, and 60.484 by using Method 21.
60.485(c)	Determining 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).
60.485(d)	Methods used to test each piece of equipment to demonstrate that the VOC content would never be reasonably expected to exceed 10 percent by weight.
60.485(e)	Demonstration that equipment is in light liquid service.
60.485(f)	Requirements for samples used in conjunction with 60.485(d), (e) and (g).

(3) [OAC 3745-21-09(T)] METHOD FOR THE DETECTION OF LEAKS OF VOC COMPOUNDS FROM PETROLEUM REFINERY EQUIPMENT

a. [OAC 3745-21-10(F)(1)]
This method is applicable to the detection of leaks of volatile organic compounds into the ambient air from petroleum refinery equipment and any chemical manufacturing equipment subject to paragraph (T) or (DD) of OAC rule 3745-21-09 of the Ohio Administrative Code.

b. [OAC 3745-21-10(F)(2)]
The detection of leaks shall be determined in accordance with the test procedure set forth in "Method 21, 40 CFR, Part 60, Appendix A."

c. [OAC 3745-21-10(F)(3)]
The calibration gases shall be:

i. Zero air, which consists of less than ten ppmv of hydrocarbon in air; and

ii. A mixture of air and methane or n-hexane at a concentration of approximately, but less than, ten thousand ppmv of methane or n-hexane.

d. [OAC 3745-21-10(F)(4)]
The leak detection instrument shall be calibrated before use on each day of its use.

(4) 40 CFR 63, Subpart H] NESHAP FROM PETROLEUM REFINERIES FOR ORGANIC HAZARDOUS AIR POLLUTANTS FOR EQUIPMENT LEAKS

The permittee shall comply with the applicable testing requirements required in 40 CFR Part 63, Subpart H, including the following sections briefly summarized:

63.180	*Testing and Procedures:*
63.180(a) through (d)	Monitoring shall comply with Method 21 of 40 CFR part 60, Appendix A, according to the requirements stated in 63.180(b), (c), and (d).
63.180(e)	Requirements when a flare is used to comply with 63.172(d).
63.180(f) and (g)	Procedures used to pressure test batch-process equipment for pressure or vacuum loss.

g) Miscellaneous Requirements

(1) [CD, section XVIII, 245] TERMINATION of the CONSENT DECREE

The Consent Decree shall be subject to termination upon motion by the United States or Sunoco under the conditions identified in Paragraphs 245 through 247 of the Consent Decree. Sunoco may seek termination of the Consent Decree upon either (A) completion

and satisfaction at the relevant Refinery of all of the following requirements stated in Paragraphs 245.a-e.; or (B) anytime after the permanent shutdown of, and relinquishment of all operating permits for, such Refinery.

39. T003, Tank 503

Operations, Property and/or Equipment Description:

T003 - 10,363 bbl internal floating roof storage tank [Tank 503] (EFR to IFR conversion), Group 1 storage vessel, primary seal - mechanical seal

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-21-09(L)	See b)(2)a.
b.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	Table 6 of 40 CFR Part 63, Subpart CC "General Provisions Applicability to Subpart CC" provides applicability provisions, definitions, and other general provisions of 40 CFR Part 63, Subpart A that are applicable to this emissions unit.
When storing a material subject to the storage vessel provisions of 40 CFR Part 63, subpart CC, comply with the following provisions of 40 CFR 63, subpart CC:		
c.	40 CFR Part 63, Subpart CC (40 CFR 63.640-656) [In accordance with 40 CFR 63.640(a), 63.640(c)(2) and 63.641, this emissions unit is subject to Subpart CC as a Group 1 storage vessel; it is associated with petroleum refining process units located at a plant site and that is a major source as defined in section 112(a) of the Clean Air Act; and meets the definition of a Group 1 storage vessel as defined in 63.641.]	In accordance with 63.646(a) the permittee of a Group 1 storage vessel subject to 40 CFR Part 63, Subpart CC shall comply with the requirements of 63.119 through 63.121 of 40 CFR 63, Subpart G, except as provided in 63.646(b) through 63.646(l). See b)(2)b. through b)(2)d.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
When storing a material subject to the Benzene Waste Organic NESHAP (BWON) provisions of 40 CFR 61, subpart FF, comply with the following additional provisions of 40 CFR Part 63, subpart CC:		
d.	40 CFR Part 63, Subpart CC (40 CFR 63.640-656) [In accordance with 40 CFR 63.640(a), 63.640(c)(3) and 63.641, this emissions unit is subject to Subpart CC as a petroleum refining process unit located at a plant site that is a major source as defined in section 112(a) of the Clean Air Act; and meets the definition of a tank storing a BWON regulated material as defined in 63.641 and 40 CFR 61 Subpart FF.]	In accordance with 63.647(a), 63.647(b) and 63.655(a), the permittee of a storage tank subject to 40 CFR Part 63, Subpart CC containing a BWON waste, shall comply with the requirements of 61.340 through 61.357 of 40 CFR 61, Subpart FF. See b)(2)e.
e.	40 CFR Part 61, Subpart FF (40 CFR 61.340-358) [In accordance with 40 CFR 61.340(a) and (b), this emissions unit is subject to Subpart FF as a storage vessel holding a BWON regulated material at a petroleum refinery.]	In accordance with 40 CFR 61.351(a) and (b), as an alternative to the standards for tanks specified in 61.343, the permittee may elect to comply with having a fixed roof and internal floating roof meeting the requirements of 40 CFR 60.112b(a)(1) of 40 CFR 60, Subpart Kb.
f.	40 CFR Part 61, Subpart A (40 CFR 61.01-19)	40 CFR Part 61 Subpart A provides applicability provisions, definitions, and other general provisions that are pertinent to emissions units affected by 40 CFR Part 61.

(2) Additional Terms and Conditions

a. No fixed roof tank can store a petroleum liquid with a true vapor pressure greater than 1.52 psi unless it is equipped with an internal floating roof.

b. MACT status (Group 1 or Group 2) is determined by the type of material being stored in the tank as defined by 40 CFR 63.641. If an existing tank changes from a Group 1 to Group 2 storage vessel where the material stored is less than 1.51 psia (maximum true vapor pressure) or 4% by weight of HAPS, then the tank is only subject to the recordkeeping requirements of 40 CFR 63.123(a) of Subpart

G and 63.655(i)(1)(iv) of Subpart CC and is not required to comply with any other provisions in 40 CFR 63.119 through 63.123 of Subpart G.

c. In accordance with 63.119(a)(1), the permittee shall reduce the emissions of HAPs to the atmosphere by operating and maintaining an external floating roof converted to an internal floating roof (i.e., fixed roof installed above external floating roof) in compliance with the applicable requirements of 63.119(b).

d. [63.646(g)]
Failure to perform inspections and monitoring required by 40 CFR Part 63.646, Subpart CC shall constitute a violation of the applicable standard of this Subpart.

e. [63.647(b)]
As used in this section, all terms not defined by 40 CFR 63.641 shall have the meaning in the Clean Air Act or in 40 CFR Part 61, Subpart FF, section 61.341.

c) Operational Restrictions

(1) The permittee shall install the following equipment and shall maintain tank vents, seals, and or covers as follows:

a. The fixed roof storage tank shall be equipped with an internal floating roof.

b. The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports.

c. The rim vents, if present, shall be set to open or at the manufacturer's recommended setting when the roof is being floated off the roof leg supports.

d. All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-21-09(L)(1)]

(2) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES – STORAGE VESSEL PROVISIONS
The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart CC, including the following sections:

63.646(f)(1)	If a cover or lid is installed on an opening on a floating roof, the cover or lid shall remain closed except when the cover or lid must be open for access.
63.646(f)(2)	Rim space vents are to be set to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

63.646(f)(3)	Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(3) [40 CFR63, Subpart G] STORAGE VESSEL PROVISIONS
The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart G, including the following sections:

63.119(d)	For an external floating roof converted to an internal floating roof (i.e., fixed roof installed above external floating roof), comply with the requirements for internal floating roof vessels specified in 40 CFR Part 63.119(b)(1), (2) and (3).
63.119(b)	The operator who elects to use a fixed roof and an internal floating roof shall comply with 63.119(b)(1) through (b)(6). Note: The intent of 40 CFR Part 63.119(b)(1) and (b)(2) of Subpart G is to avoid having a vapor space between the floating roof and the stored liquid for extended periods. Storage vessels may be emptied for purposes such as routine storage vessel maintenance, inspections, petroleum liquid deliveries, or transfer operations. Storage vessels where liquid is left on walls, as bottom clingage, or in pools due to floor irregularity are considered completely empty
63.119(b)(1)	The internal floating roof shall be floating on the liquid surface at all times except during the periods listed in 63.119(b)(1)(i) through (iii).
63.119(b)(2)	When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical.
63.119(b)(3)	Each internal floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device shall consist of one of the following devices: a liquid-mounted seal; a metallic shoe seal or two seals mounted one above the other. The lower seal may be vapor-mounted, but both must be continuous seals.

(4) [40 CFR 61, Subpart FF] – NATIONAL EMISSION STANDARDS FOR BENZENE WASTE OPERATIONS – WASTEWATER PROVISONS
The permittee shall comply with the applicable restrictions required under 40 CFR 61, Subpart FF that defers to 40 CFR Part 60, Subpart Kb, including the following sections:

40 CFR 61.351(a) of Subpart FF	The permittee has chosen as an alternative to the standards for tanks specified in 61.343 of this subpart, to comply with the fixed roof and internal floating roof meeting the requirements in 40 CFR 60.112b(a)(1) of 40 CFR 60, subpart Kb.
40 CFR 60, Subpart Kb – Storage Vessel Provisions The permittee shall comply with the applicable restrictions required under 40 CFR Part 60, Subpart Kb, including the following sections:	
60.112b(a)	Equip each storage vessel with a fixed roof in combination with an internal floating roof meeting the following specifications in 60.112b(a)(1).
60.112b(a)(1)(i)	The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.
60.112b(a)(1)(ii)	Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof as stated in 60.112(a)(1)(ii)(A) through (C).
60.112b(a)(1)(iii)	Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.
60.112b(a)(1)(iv)	Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.
60.112b(a)(1)(v)	Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.
60.112b(a)(1)(vi)	Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

60.112b(a)(1)(vii)	Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
60.112b(a)(1)(viii)	Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
60.112b(a)(1)(ix)	Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain records of the following information:

a. The types of petroleum liquids stored in the tank.

b. The maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

c. Maintain a record of any period of time in which the automatic bleeder vents, rim vents, and all openings other than stub drains were not maintained as required in this permit and per the rules.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-21-09(L)(1)(b) and (c), (L)(3) and (L)(4)]

(2) Compliance with the tank repair requirements in 40 CFR Part 63, Subpart CC has been determined to be as stringent or more stringent as the tank repair requirements of OAC rule 3745-21-09(L).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES – STORAGE VESSEL PROVISIONS

The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, subpart CC, including the following sections:

63.642(e)	Requirements for keeping all applicable reports and records required by this subpart for at least 5 years except as otherwise specified in this permit and be readily accessed within 24 hours.
63.646(b), (b)(1) and (b)(2)	*Storage Vessel Provisions:* All terms not defined in 63.641 shall have the meaning given them in 40 CFR Part 63, Subparts A or G. The Group 1 storage vessel definition

	presented in 40 CFR Part 63.641 applies in lieu of the Group 1 storage vessel definitions presented in tables 5 and 6 of 40 CFR Part 63.119 of Subpart G. Use good engineering judgment or test results to determine the stored liquid weight percent total organic HAP. Method 18 of 40 CFR Part 60, Appendix A shall be used to determine the average weight percent of organic HAP in the liquid of the permittee and Administrator do not agree.
63.646(e)	When complying with the inspection requirements of 40 CFR Part 63.120 of Subpart G, existing storage vessels are not required to comply with the provisions for gaskets, slotted membranes, and sleeve seals.
63.655(i)	*Recordkeeping Requirements*: Keep the storage vessel records specified in 63.123 of Subpart G except as specified in 63.655(i)(i) through (iv).
63.655(i)(1)(i)	Records related to gaskets, slotted membranes, and sleeve seals are not required for storage vessels within existing sources.
63.655(i)(1)(iv)	If a storage vessel is determined to be Group 2 storage vessel, a record of any data, assumptions, and procedures used to make this determination shall be retained.

(4) [40 CFR 63, Subpart G] NESHAP FROM THE SYNTHETIC ORGANIC CHEMICAL MANUFACTURING INDUSTRY - STORAGE VESSEL PROVISIONS

The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, subpart G, including the following sections:

63.120(a) and (c)	*Storage Vessel Provisions:* To demonstrate compliance with 63.119(d) and the applicable provisions of 63.119(b), comply with the requirements of 63.120(a)(1) through (a)(7).
63.123(a)	*Recordkeeping*: Keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 status and is in operation
63.123(e)	Keep records of each inspection required by 40 CFR 63.120(a).
63.123(g)	If an extension is requested for emptying a storage vessel per 40 CFR Part 63.120(a)(4), then keep in a readily accessible

	location, the documentation specified in 40 CFR Part 63.120(a)(4) as applicable.

(5) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES – WASTEWATER PROVISIONS
The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, Subpart CC, including the following sections:

63.642(e)	*General Standards:* Requirements for keeping all applicable reports and records required by this subpart for at least 5 years except as otherwise specified in this permit and be readily accessed within 24 hours.
63.655(a)	*Recordkeeping Requirements*: Comply with the storage vessel recordkeeping provisions specified in 61.356 of Subpart FF.

(6) [40 CFR 61, Subpart FF] – NATIONAL EMISSION STANDARDS FOR BENZENE WASTE OPERATIONS – WASTEWATER PROVISIONS
The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 61, subpart FF, including the following sections:

40 CFR 61.356(k)	The permittee who elects the alternative to the standards for tanks specified in 61.351 of Subpart FF shall comply with the recordkeeping requirements in 40 CFR 60.115b of 40 CFR 60, Subpart Kb.
40 CFR 60, Subpart Kb – Storage Vessel Provisions The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 60, subpart Kb, including the following sections:	
60.115b(a)(2)	*Recordkeeping Requirements*: Keep a record of each inspection performed as required by 40 CFR Part 60.113b(a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).
60.113b - Inspections	
60.113b(a)(1)	*Inspections prior to filling the tank*: Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, then repair the items before filling the storage vessel.

60.113b(a)(2)	*Annual Inspections*: For vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, then repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections and cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in 40 CFR Part 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.
60.113b(a)(3)	For vessels equipped with a double-seal system as specified in 40 CFR Part 60.112b(a)(1)(ii)(B): - visually inspect the vessel as specified in 40 CFR Part 60.113b(a)(4) at least every 5 years; or -visually inspect the vessel as specified in 40 CFR Part 60.113b(a)(2).
60.113b(a)(4)	*Inspections when tank is emptied and degassed*: Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the permittee shall repair the items as necessary so that None of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in 40 CFR Part 60.113b(a)(2).

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the occurrence, of any period of time in which the automatic bleeder vents, rim vents, and all openings other than stub drains were not maintained as required in this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(L)(4)]

(3) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES – STORAGE VESSEL PROVISIONS
The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 63, Subpart CC, including the following sections:

63.646(l)	*Storage Vessel Provisions – Notification Requirements:* TES can waive the notification requirements of 40 CFR Part 63.120(a)(5), 63.120(a)(6), 63.120(b)(10)(ii), and 63.120(b)(10)(iii) for all or some storage vessels at petroleum refineries subject to this subpart. TES grants permission to Toledo Refining Co. to refill storage vessels seven days after submitting the notifications in 40 CFR Part 63.120(a)(6) or 63.120(b)(10)(iii) for all storage vessels at a refinery.
63.655 - Reporting Requirements:	
63.655(g); (g)(1) and (g)(2)	Semiannual reporting requirements for storage vessels in regards to inspections,
63.655(h)(2)	*Reports submitted for notifications of inspections as specified in 40 CFR Part 63.655(h)(2)(i)*

(4) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES – WASTEWATER PROVISIONS
The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 63, Subpart CC, including the following sections:

63.655(a)	*Reporting Requirements*: Comply with the storage vessel reporting provisions specified in 61.357 of Subpart FF.

(5) [40 CFR 61, Subpart FF] – NATIONAL EMISSION STANDARDS FOR BENZENE WASTE OPERATIONS – WASTEWATER PROVISIONS
The permittee shall submit the following reports and such other notifications and reports to the appropriate Ohio EPA District office or local air agency as are required pursuant to 40 CFR 61, Subpart FF, including the following sections:

40 CFR 61.357(f)	The permittee who elects the alternative to the standards for tanks specified in 61.351 of Subpart FF shall comply with the reporting requirements in 40 CFR 60.115b of 40 CFR 60, Subpart Kb.
40 CFR 60, Subpart Kb – Storage Vessel Provisions The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 60, Subpart Kb, including the following sections:	
60.113(a)(5)	Notification requirements prior to filling or re-filling the tank.
60.115b(a)(3)	If any of the conditions described in 40 CFR Part 60.113b(a)(2) are detected during the annual visual inspection, a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.
60.115b(a)(4)	After each inspection required by 40 CFR Part 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in 40 CFR Part 60.113b(a)(3)(ii), a report shall be furnished to TES within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of 40 CFR Part 60.112b(a)(1) or 40 CFR Part 60.113b(a)(3) and list each repair made.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

40. T005, Tank 504

Operations, Property and/or Equipment Description:

T005 - 10,595 bbl internal floating roof storage tank [Tank 504]; Group 1 storage vessel with single seal; primary seal

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-21-09(L)	See b)(2)a.
b.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	Table 6 of 40 CFR Part 63, Subpart CC "General Provisions Applicability to Subpart CC" provides applicability provisions, definitions, and other general provisions of 40 CFR Part 63, Subpart A that are applicable to this emissions unit.
When storing a material subject to the storage vessel provisions of 40 CFR Part 63, subpart CC, comply with the following provisions of 40 CFR 63, subpart CC:		
c.	40 CFR Part 63, Subpart CC (40 CFR 63.640-656) [In accordance with 40 CFR 63.640(a), 63.640(c)(2) and 63.641, this emissions unit is subject to Subpart CC as a Group 1 storage vessel; it is associated with petroleum refining process units located at a plant site and that is a major source as defined in section 112(a) of the Clean Air Act; and meets the definition of a Group 1 storage vessel as defined in 63.641.]	In accordance with 63.646(a) the permittee of a Group 1 storage vessel subject to 40 CFR Part 63, Subpart CC shall comply with the requirements of 63.119 through 63.121 of 40 CFR 63, Subpart G, except as provided in 63.646(b) through 63.646(l). See b)(2)b. through b)(2)d.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
When storing a material subject to the Benzene Waste Organic NESHAP (BWON) provisions of 40 CFR Part 61, subpart FF, comply with the following additional provisions of 40 CFR 63, subpart CC:		
d.	40 CFR Part 63, Subpart CC (40 CFR 63.640-656) [In accordance with 40 CFR 63.640(a), 63.640(c)(3) and 63.641, this emissions unit is subject to Subpart CC as a petroleum refining process unit located at a plant site that is a major source as defined in section 112(a) of the Clean Air Act; and meets the definition of a tank storing a BWON regulated materialas defined in 40 CFR 61 Subpart FF.]	In accordance with 63.647(a), 63.647(b) and 63.655(a), the permittee of a storage tank subject to 40 CFR Part 63, Subpart CC containing a BWON waste, shall comply with the requirements of 61.340 through 61.357 of 40 CFR 61, Subpart FF. See b)(2)e.
e.	40 CFR Part 61, Subpart FF (40 CFR 61.340-358) [In accordance with 40 CFR 61.340(a) and (b), this emissions unit is subject to Subpart FF as a storage vessel holding BWON regulated material at a petroleum refinery.]	In accordance with 40 CFR 61.351(a) and (b), as an alternative to the standards for tanks specified in 61.343, the permittee may elect to comply with having a fixed roof and internal floating roof meeting the requirements of 40 CFR 60.112b(a)(1) of 40 CFR 60, Subpart Kb.
f.	40 CFR Part 61, Subpart A (40 CFR 61.01-19)	40 CFR Part 61 Subpart A provides applicability provisions, definitions, and other general provisions that are pertinent to emissions units affected by 40 CFR Part 61.

(2) Additional Terms and Conditions

a. No fixed roof tank can store a petroleum liquid with a true vapor pressure greater than1.52 psi unless it is equipped with an internal floating roof.

b. MACT status (Group 1 or Group 2) is determined by the type of material being stored in the tank as defined by 40 CFR 63.641. If an existing tank changes from a Group 1 to Group 2 storage vessel where the material stored is less than 1.51 psia (maximum true vapor pressure) or 4% by weight of HAPS, then the tank is

only subject to the recordkeeping requirements of 40 CFR 63.123(a) of Subpart G and 63.655(i)(1)(iv) of Subpart CC and is not required to comply with any other provisions in 40 CFR 63.119 through 63.123 of Subpart G.

c. In accordance with 63.119(a)(1), the permittee shall reduce the emissions of HAPs to the atmosphere by operating and maintaining an internal floating roof in compliance with the applicable requirements in 63.119(b).

d. [63.646(g)]
Failure to perform inspections and monitoring required by 40 CFR Part 63.646, Subpart CC shall constitute a violation.

e. [63.647(b)]
As used in this section, all terms not identified in 40 CFR Part 63.641 shall have the meaning in the Clean Air Act or in 40 CFR Part 61, Subpart FF, section 61.341.

c) Operational Restrictions

(1) The permittee shall install the following equipment and shall maintain tank vents, seals, and or covers as follows:

a. The fixed roof storage tank shall be equipped with an internal floating roof.

b. The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports.

c. The rim vents, if present, shall be set to open or at the manufacturer's recommended setting when the roof is being floated off the roof leg supports.

d. All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-21-09(L)(1)]

(2) 40 CFR 63, Subpart CC – NESHAP FROM PETROLEUM REFINERIES - STORAGE VESSEL PROVISIONS
The permittee shall comply with the applicable operational restrictions required under 40 CFR Part 63, Subpart CC, including the following sections:

63.646(f)(1)	If a cover or lid is installed on an opening on a floating roof, the cover or lid shall remain closed except when the cover or lid must be open for access.
63.646(f)(2)	Rim space vents are to be set to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

63.646(f)(3)	Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(3) [40 CFR 63, Subpart G] STORAGE VESSEL PROVISIONS [63.119(b)]
The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart G, including the following sections:

63.119(b)	For a fixed roof and an internal floating roof, comply with the requirements specified in 63.119(b)(1) and (b)(4), as provided in 63.646(c) of subpart CC. *Note***:** The intent of 40 CFR Part 63.119(b)(1) and (b)(2) of Subpart G is to avoid having a vapor space between the floating roof and the stored liquid for extended periods. Storage vessels may be emptied for purposes such as routine storage vessel maintenance, inspections, petroleum liquid deliveries, or transfer operations. Storage vessels where liquid is left on walls, as bottom clingage, or in pools due to floor irregularity are considered completely empty.
63.119(b)(1)	The internal floating roof shall be floating on the liquid surface at all times except during the periods listed in 63.119(b)(1)(i) through (iii).
63.119(b)(2)	When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical.
63.119(b)(3)	Each internal floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device shall consist of one of the following devices: a liquid-mounted seal; a metallic shoe seal or two seals mounted one above the other. The lower seal may be vapor-mounted, but both must be continuous seals.
63.119(b)(4)	Automatic bleeder vents are to be closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the roof leg supports.

(4) [40 CFR 61, Subpart FF] – NATIONAL EMISSION STANDARDS FOR BENZENE WASTE OPERATIONS – WASTEWATER PROVISONS
The permittee shall comply with the applicable restrictions required under 40 CFR 61, Subpart FF that defers to 40 CFR Part 60, Subpart Kb, including the following sections:

40 CFR 61.351(a) of Subpart FF	The permittee has chosen as an alternative to the standards for tanks specified in 61.343 of this subpart, to comply with the fixed roof and internal floating roof meeting the requirements in 40 CFR 60.112b(a)(1) of 40 CFR 60, subpart Kb.
40 CFR 60, Subpart Kb – Storage Vessel Provisions The permittee shall comply with the applicable restrictions required under 40 CFR Part 60, Subpart Kb, including the following sections:	
60.112b(a)	Equip each storage vessel with a fixed roof in combination with an internal floating roof meeting the following specifications in 60.112b(a)(1).
60.112b(a)(1)(i)	The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.
60.112b(a)(1)(ii)	Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof as stated in 60.112(a)(1)(ii)(A) through (C).
60.112b(a)(1)(iii)	Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.
60.112b(a)(1)(iv)	Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.
60.112b(a)(1)(v)	Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

60.112b(a)(1)(vi)	Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.
60.112b(a)(1)(vii)	Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
60.112b(a)(1)(viii)	Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
60.112b(a)(1)(ix)	Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

d) Monitoring and/or Recordkeeping Requirements

(1) [OAC rule 3745-21-09(L)]
The permittee shall maintain records of the following information:

a. the types of petroleum liquids stored in the tank; and

b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall maintain a record of any period of time in which the automatic bleeder vents, rim vents, and all openings other than stub drains were not maintained as required in this permit and per the rules.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-21-09(L)(1)(b) and (c) and (L)(4)]

(3) Compliance with the tank repair requirements in 40 CFR Part 63, Subpart CC has been determined to be as stringent or more stringent as the tank repair requirements of OAC rule 3745-21-09(L).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES – STORAGE VESSEL PROVISIONS
The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, subpart CC, including the following sections:

63.642(e)	Requirements for keeping all applicable reports and records required by this subpart for at least 5 years except as

	otherwise specified in this permit and be readily accessed within 24 hours.
63.646(b), (b)(1) and (b)(2)	*Storage Vessel Provisions:* All terms not defined in 63.641 shall have the meaning given them in 40 CFR Part 63, Subparts A or G. The Group 1 storage vessel definition presented in 40 CFR Part 63.641 applies in lieu of the Group 1 storage vessel definitions presented in tables 5 and 6 of 40 CFR Part 63.119 of Subpart G. Use good engineering judgment or test results to determine the stored liquid weight percent total organic HAP. Method 18 of 40 CFR Part 60, Appendix A shall be used to determine the average weight percent of organic HAP in the liquid if the permittee and Administrator do not agree.
63.646(e)	When complying with the inspection requirements of 40 CFR Part 63.120 of Subpart G, existing storage vessels are not required to comply with the provisions for gaskets, slotted membranes, and sleeve seals.
63.655(i)	*Recordkeeping Requirements*: Keep the storage vessel records specified in 63.123 of Subpart G except as specified in 63.655(i)(i) through (iv).
63.655(i)(1)(i)	Records related to gaskets, slotted membranes, and sleeve seals are not required for storage vessels within existing sources.
63.655(i)(1)(iv)	If a storage vessel is determined to be Group 2 storage vessel, a record of any data, assumptions, and procedures used to make this determination shall be retained.

(5) [40 CFR 63, Subpart G] NESHAP FROM THE SYNTHETIC ORGANIC CHEMICAL MANUFACTURING INDUSTRY – STORAGE VESSEL PROVISIONS
The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, subpart G, including the following sections:

63.120(a)	*Storage Vessel Provisions:* To demonstrate compliance with 63.119(b) or 63.119(d), comply with the requirements of 63.120(a)(1) through (a)(7).
63.123(a)	*Recordkeeping*: Keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 status and is in

	operation
63.123(c)	Keep records of each inspection required by 40 CFR 63.120(a).
63.123(g)	If an extension is requested for emptying a storage vessel per 40 CFR Part 63.120(a)(4), then keep in a readily accessible location, the documentation specified in 40 CFR Part 63.120(a)(4) as applicable.

(6) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES – WASTEWATER PROVISIONS
The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, Subpart CC, including the following sections:

63.642(e)	*General Standards:* Requirements for keeping all applicable reports and records required by this subpart for at least 5 years except as otherwise specified in this permit and be readily accessed within 24 hours.
63.655(a)	*Recordkeeping Requirements*: Comply with the storage vessel recordkeeping provisions specified in 61.356 of Subpart FF.

(7) [40 CFR 61, Subpart FF] – NATIONAL EMISSION STANDARDS FOR BENZENE WASTE OPERATIONS – WASTEWATER PROVISIONS
The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 61, subpart FF, including the following sections:

40 CFR 61.356(k)	The permittee who elects the alternative to the standards for tanks specified in 61.351 of Subpart FF shall comply with the recordkeeping requirements in 40 CFR 60.115b of 40 CFR 60, Subpart Kb.
40 CFR 60, Subpart Kb – Storage Vessel Provisions The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 60, subpart Kb, including the following sections:	
60.115b(a)(2)	*Recordkeeping Requirements*: Keep a record of each inspection performed as required by 40 CFR Part 60.113b(a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

60.113b - Inspections	
60.113b(a)(1)	*Inspections prior to filling the tank*: Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, then repair the items before filling the storage vessel.
60.113b(a)(2)	*Annual Inspections*: For vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, then repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections and cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in 40 CFR Part 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.
60.113b(a)(3)	For vessels equipped with a double-seal system as specified in 40 CFR Part 60.112b(a)(1)(ii)(B): - visually inspect the vessel as specified in 40 CFR Part 60.113b(a)(4) at least every 5 years; or -visually inspect the vessel as specified in 40 CFR Part 60.113b(a)(2).
60.113b(a)(4)	*Inspections when tank is emptied and degassed*: Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than

	10 percent open area, the permittee shall repair the items as necessary so that None of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in 40 CFR Part 60.113b(a)(2).

e) Reporting Requirements

(1) The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the occurrence, of any period of time in which the automatic bleeder vents, rim vents, and all openings other than stub drains were not maintained as required in this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(L)(4)]

(2) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES – STORAGE VESSEL PROVISIONS
The permittee shall submit the following semiannual reports and such other notifications and reports to the appropriate Ohio EPA District office or local air agency as are required pursuant to 40 CFR 63, subpart CC, including but not limited to, the following sections:

63.646(l)	*Storage Vessel Provisions – Notification Requirements:* TES can waive the notification requirements of 40 CFR Part 63.120(a)(5), 63.120(a)(6), 63.120(b)(10)(ii), and 63.120(b)(10)(iii) for all or some storage vessels at petroleum refineries subject to this subpart. TES grants permission to Toledo Refining Co. to refill storage vessels seven days after submitting the notifications in 40 CFR Part 63.120(a)(6) or 63.120(b)(10)(iii) for all storage vessels at a refinery.
63.655 – Reporting Requirements	
63.655(g); (g)(1) and (g)(2)	Semiannual reporting requirements for storage vessels in regards to inspections.
63.655(h)(2)	*Reports submitted for notifications of inspections as specified in 40 CFR Part 63.633(h)(2)(i)*

(4) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES – WASTEWATER PROVISIONS
The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 63, Subpart CC, including the following sections:

63.655(a)	*Reporting Requirements*: Comply with the storage vessel reporting provisions specified in 61.357 of Subpart FF.

(5) [40 CFR 61, Subpart FF] – NATIONAL EMISSION STANDARDS FOR BENZENE WASTE OPERATIONS – WASTEWATER PROVISIONS
The permittee shall submit the following reports and such other notifications and reports to the appropriate Ohio EPA District office or local air agency as are required pursuant to 40 CFR 61, Subpart FF, including the following sections:

40 CFR 61.357(f)	The permittee who elects the alternative to the standards for tanks specified in 61.351 of Subpart FF shall comply with the reporting requirements in 40 CFR 60.115b of 40 CFR 60, Subpart Kb.
40 CFR 60, Subpart Kb – Storage Vessel Provisions The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 60, Subpart Kb, including the following sections:	
60.113b(a)(5)	Notification requirements prior to filling or re-filling the tank.
60.115b(a)(3)	If any of the conditions described in 40 CFR Part 60.113b(a)(2) are detected during the annual visual inspection, a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.
60.115b(a)(4)	After each inspection required by 40 CFR Part 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in 40 CFR Part 60.113b(a)(3)(ii), a report shall be furnished to TES within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of 40 CFR Part 60.112b(a)(1) or 40 CFR Part 60.113b(a)(3) and list each repair made.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

41. T064, Tank 420

Operations, Property and/or Equipment Description:

T064 - 139,184 bbl internal floating roof storage tank [Tank 420] (EFR to IFR conversion), Group 1 storage vessel, primary seal - mechanical seal

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-21-09(L)	See b)(2)a. through (2)c.
b.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	Table 6 of 40 CFR Part 63, Subpart CC "General Provisions Applicability to Subpart CC" provides applicability provisions, definitions, and other general provisions of 40 CFR Part 63, Subpart A that are applicable to this emissions unit.
c.	40 CFR Part 63, Subpart CC (40 CFR 63.640-656) [In accordance with 40 CFR 63.640(a), 63.640(c)(2) and 63.641, this emissions unit is subject to Subpart CC as a Group 1 storage vessel; it is associated with petroleum refining process units located at a plant site and that is a major source as defined in section 112(a) of the Clean Air Act; and meets the definition of a Group 1 storage vessel as defined in 63.641.]	In accordance with 63.646(a) the permittee of a Group 1 storage vessel subject to 40 CFR Part 63, Subpart CC shall comply with the requirements of 63.119 through 63.121 of 40 CFR 63, Subpart G, except as provided in 63.646(b) through 63.646(l). See b)(2)d. through b)(2)h.

(2) Additional Terms and Conditions

a. The fixed roof storage tank shall be equipped with an internal floating roof.

b. The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports, and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

c. All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

d. MACT status (Group 1 or Group 2) is determined by the type of material being stored in the tank as defined by 40 CFR 63.641. Tanks storing a material that is less than 1.5 psia and 4% HAPS are only subject to the recordkeeping requirements of 40 CFR 63.123(a) of Subpart G and 63.655(i)(1)(iv) of Subpart CC and are not required to comply with any other provisions in 40 CFR 63.119 through 63.123 of Subpart G.

e. [63.646(g)]
Failure to perform inspections and monitoring required by 40 CFR Part 63.646, Subpart CC shall constitute a violation of the applicable standard of this Subpart.

f. [63.640(m)]
If a change that does not meet the criteria in 63.640(l) is made to a petroleum refining process unit subject to 40 CFR Part 63 Subpart CC, 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 emissions units 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 Director and 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 affect 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.

g. [63.119(d)]
The permittee of an external floating roof converted to an internal floating roof (i.e., fixed roof installed above external floating roof) shall comply with the requirements for internal floating roof vessels specified in 40 CFR Part 63.119(b)(1), (2) and (3).

h. [63.120(c)]
To demonstrate compliance with 40 CFR Part 63.119(d) of Subpart G (storage vessel equipped with an external floating roof converted to an internal floating roof), the permittee shall comply with the requirements of 40 CFR Part 63.120(a) of Subpart G.

c) Operational Restrictions

(1) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES – STORAGE VESSEL PROVISIONS

The following paragraphs apply to Group 1 storage vessels at existing sources:

63.646(f)(1)	If a cover or lid is installed on an opening on a floating roof, the cover or lid shall remain closed except when the cover or lid must be open for access.
63.646(f)(2)	Rim space vents are to be set to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.
63.646(f)(3)	Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(2) [40 CFR63, Subpart G] STORAGE VESSEL PROVISIONS
[Note: The intent of 40 CFR Part 63.119(b)(1) and (b)(2) of Subpart G is to avoid having a vapor space between the floating roof and the stored liquid for extended periods. Storage vessels may be emptied for purposes such as routine storage vessel maintenance, inspections, petroleum liquid deliveries, or transfer operations. Storage vessels where liquid is left on walls, as bottom clingage, or in pools due to floor irregularity are considered completely empty.]

63.119(b)(1)	The internal floating roof shall be floating on the liquid surface at all times except during the periods listed in 63.119(b)(1)(i) through (iii).
63.119(b)(2)	When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical.

63.119(b)(3)	Each internal floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device shall consist of one of the following devices: a liquid-mounted seal; a metallic shoe seal or two seals mounted one above the other. The lower seal may be vapor-mounted, but both must be continuous seals.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain records of the following information:

a. The types of petroleum liquids stored in the tank.

b. The maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) Compliance with the tank repair requirements in 40 CFR Part 63, Subpart CC has been determined to be as stringent or more stringent as the tank repair requirements of OAC rule 3745-21-09(L).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES
The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, subpart CC, including, but not limited to, the following sections:

63.642(e)	*General Standards:* Keep copies of all applicable records and reports for 5 years. Records must be readily accessed within 24 hours.
63.646(b), (b)(1) and (b)(2)	*Storage Vessel Provisions:* All terms not defined in 63.641 shall have the meaning given them in 40 CFR Part 63, Subparts A or G. The Group 1 storage vessel definition presented in 40 CFR Part 63.641 applies in lieu of the Group 1 storage vessel definitions presented in tables 5 and 6 of 40 CFR Part 63.119 of Subpart G. Use good engineering judgment or test results to determine the stored liquid weight percent total organic HAP. Method 18 of 40 CFR Part 60, Appendix A shall be used to determine the average weight percent of organic HAP in the liquid of the permittee and Administrator do not agree.
63.646(e)	When complying with the inspection requirements of 40 CFR Part 63.120 of Subpart G, existing storage vessels are not required to comply with the provisions for gaskets, slotted membranes, and sleeve seals.

63.655(i)	*Recordkeeping Requirements*: Keep the storage vessel records specified in 63.123 of Subpart G except as specified in 63.655(i)(i) through (iv).

(4) [40 CFR 63, Subpart G] NESHAP FROM THE SYNTHETIC ORGANIC CHEMICAL MANUFACTURING INDUSTRY
The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, subpart G, including, but not limited to, the following sections:

63.120(a)	*Storage Vessel Provisions:* To demonstrate compliance with 63.119(b) or 63.119(d), comply with the requirements of 63.120(a)(1) through (a)(7).
63.123(a)	*Recordkeeping*: Keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 status and is in operation
63.123(e)	Keep records of each inspection required by 40 CFR 63.120(a).
63.123(g)	If an extension is requested for emptying a storage vessel per 40 CFR Part 63.120(a)(4), then keep in a readily accessible location, the documentation specified in 40 CFR Part 63.120(a)(4) as applicable.

e) Reporting Requirements

(1) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES
The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 63, Subpart CC, including the following sections:

63.646(l)	*Storage Vessel Provisions – Notification Requirements:* TES can waive the notification requirements of 40 CFR Part 63.120(a)(5), 63.120(a)(6), 63.120(b)(10)(ii), and 63.120(b)(10)(iii) for all or some storage vessels at petroleum refineries subject to this subpart. TES grants permission to Toledo Refining Co. to refill storage vessels seven days after submitting the notifications in 40 CFR Part 63.120(a)(6) or 63.120(b)(10)(iii) for all storage vessels at a refinery.
63.655(g); (g)(1) and (g)(2)	*Reporting Requirements*: Semiannual reporting requirements for storage vessels in regards to inspections,

63.655(h)(2)	Reports submitted for notifications of inspections as specified in 40 CFR Part 63.655(h)(2)(i)

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

42. T075, Tank 510

Operations, Property and/or Equipment Description:

T075 - 10,071 bbl internal floating roof storage tank [Tank 510]; a wastewater storage tank, single seal; primary seal - liquid mounted, resilient foam filled

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-21-09(L)	See b)(2)a.
b.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	Table 6 of 40 CFR Part 63, Subpart CC "General Provisions Applicability to Subpart CC" provides applicability provisions, definitions, and other general provisions of 40 CFR Part 63, Subpart A that are applicable to this emissions unit.
c.	40 CFR Part 63, Subpart CC (40 CFR 63.640-656) [In accordance with 40 CFR 63.640(a), 63.640(c)(3) and 63.641, this emissions unit is subject to Subpart CC as a petroleum refining process unit located at a plant site that is a major source as defined in section 112(a) of the Clean Air Act; and meets the definition of a tank storing a Benzene Waste Organic NESHAP (BWON) regulated material as defined in 63.641.]	In accordance with 63.647(a) and 63.655(a), the permittee of a wastewater storage tank subject to 40 CFR Part 63, Subpart CC, shall comply with the requirements of 61.340 through 61.357 of 40 CFR 61, Subpart FF. See b)(2)b. and b)(2)c.
d.	40 CFR Part 61, Subpart FF (40 CFR 61.340-358)	In accordance with 40 CFR 61.351(a) and (b), as an alternative to the standards for tanks specified in 61.343, the permittee

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	[In accordance with 40 CFR 61.340(a) and (b), this emissions unit is subject to Subpart FF as a storage vessel holding a BWON regulated material at a petroleum refinery.]	may elect to comply with having a fixed roof and internal floating roof meeting the requirements of 40 CFR 60.112b(a)(1) of 40 CFR 60, Subpart Kb.
e.	40 CFR Part 61, Subpart A (40 CFR 61.01-19)	40 CFR Part 61 Subpart A provides applicability provisions, definitions, and other general provisions that are pertinent to emissions units affected by 40 CFR Part 61.

(2) Additional Terms and Conditions

a. No fixed roof tank can store a petroleum liquid with a true vapor pressure greater than 1.52 psi unless it is equipped with an internal floating roof.

b. In accordance with 63.641, the definition for storage vessels exempts wastewater storage tanks from the storage vessel provisions of 40 CFR 63.646, Subpart CC.

c. MACT status (Group 1 or Group 2) is determined by the type of material being stored in the tank as defined by 40 CFR 63.641. If an existing tank changes from a Group 1 to Group 2 storage vessel where the material stored is less than 1.51 psia (maximum true vapor pressure) or 4% by weight of HAPS, then the tank is only subject to the recordkeeping requirements of 40 CFR 63.123(a) of Subpart G and 63.655(i)(1)(iv) of Subpart CC and is not required to comply with any other provisions in 40 CFR 63.119 through 63.123 of Subpart G

c) Operational Restrictions

(1) The permittee shall install the following equipment and shall maintain tank vents, seals, and or covers as follows:

a. The fixed roof storage tank shall be equipped with an internal floating roof.

b. The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports.

c. The rim vents, if present, shall be set to open or at the manufacturer's recommended setting when the roof is being floated off the roof leg supports.

d. All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-21-09(L)(1)]

(2) [40 CFR 61, Subpart FF] – NATIONAL EMISSION STANDARDS FOR BENZENE WASTE OPERATIONS
The permittee shall comply with the applicable restrictions required under 40 CFR 61, Subpart FF that defers to 40 CFR Part 60, Subpart Kb, including the following sections:

40 CFR 61.351(a) of Subpart FF	The permittee has chosen as an alternative to the standards for tanks specified in 61.343 of this subpart, to comply with the fixed roof and internal floating roof meeting the requirements in 40 CFR 60.112b(a)(1) of 40 CFR 60, subpart Kb.
40 CFR 60, Subpart Kb – Storage Vessel Provisions The permittee shall comply with the applicable restrictions required under 40 CFR Part 60, Subpart Kb, including the following sections:	
60.112b(a)	Equip each storage vessel with a fixed roof in combination with an internal floating roof meeting the following specifications in 60.112b(a)(1).
60.112b(a)(1)(i)	The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.
60.112b(a)(1)(ii)	Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof as stated in 60.112(a)(1)(ii)(A) through (C).
60.112b(a)(1)(iii)	Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.
60.112b(a)(1)(iv)	Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.
60.112b(a)(1)(v)	Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof

	leg supports.
60.112b(a)(1)(vi)	Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.
60.112b(a)(1)(vii)	Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
60.112b(a)(1)(viii)	Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
60.112b(a)(1)(ix)	Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain records of the following information:

a. the types of petroleum liquids stored in the tank;

b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute; and

c. maintain a record of any period of time in which the automatic bleeder vents, rim vents, and all openings other than stub drains were not maintained as required in this permit and per the rules.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(L)(3) and (L)(4)]

(2) Compliance with the tank repair requirements in 40 CFR Part 63, Subpart CC has been determined to be as stringent or more stringent as the tank repair requirements of OAC rule 3745-21-09(L).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES
The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, Subpart CC, including the following sections:

63.642(e)	*General Standards:* Requirements for keeping all applicable reports and records required by this subpart for at least 5 years except as otherwise specified in this permit and be readily accessed within 24 hours.

63.655(a)	*Recordkeeping Requirements*: Comply with the waste water storage vessel recordkeeping provisions specified in 61.356 of Subpart FF.

(4) [40 CFR 61, Subpart FF] – NATIONAL EMISSION STANDARDS FOR BENZENE WASTE OPERATIONS
The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 61, subpart FF, including the following sections:

40 CFR 61.356(k)	The permittee who elects the alternative to the standards for tanks specified in 61.351 of Subpart FF shall comply with the recordkeeping requirements in 40 CFR 60.115b of 40 CFR 60, Subpart Kb.
40 CFR 60, Subpart Kb – Storage Vessel Provisions The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 60, subpart Kb, including the following sections:	
60.115b(a)(2)	*Recordkeeping Requirements*: Keep a record of each inspection performed as required by 40 CFR Part 60.113b(a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).
60.113b - Inspections	
60.113b(a)(1)	*Inspections prior to filling the tank*: Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, then repair the items before filling the storage vessel.
60.113b(a)(2)	*Annual Inspections*: For vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, then repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections and cannot be repaired within 45

	days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in 40 CFR Part 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.
60.113b(a)(3)	For vessels equipped with a double-seal system as specified in 40 CFR Part 60.112b(a)(1)(ii)(B): - visually inspect the vessel as specified in 40 CFR Part 60.113b(a)(4) at least every 5 years; or -visually inspect the vessel as specified in 40 CFR Part 60.113b(a)(2).
60.113b(a)(4)	*Inspections when tank is emptied and degassed*: Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the permittee shall repair the items as necessary so that None of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in 40 CFR Part 60.113b(a)(2).

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the occurrence, of any period of time in which the automatic bleeder vents, rim vents, and all openings other than stub drains were not maintained as required in this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(L)(4)]

(3) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES
The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 63, Subpart CC, including the following sections:

63.655(a)	*Reporting Requirements*: Comply with the storage vessel reporting provisions specified in 61.357 of Subpart FF.

(4) [40 CFR 61, Subpart FF] – NATIONAL EMISSION STANDARDS FOR BENZENE WASTE OPERATIONS
The permittee shall submit the following reports and such other notifications and reports to the appropriate Ohio EPA District office or local air agency as are required pursuant to 40 CFR 61, Subpart FF, including the following sections:

40 CFR 61.357(f)	The permittee who elects the alternative to the standards for tanks specified in 61.351 of Subpart FF shall comply with the reporting requirements in 40 CFR 60.115b of 40 CFR 60, Subpart Kb.
40 CFR 60, Subpart Kb – Storage Vessel Provisions The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 60, Subpart Kb, including the following sections:	
60.113b(a)(5)	Notification requirements prior to filling or re-filling the tank.
60.115b(a)(3)	If any of the conditions described in 40 CFR Part 60.113b(a)(2) are detected during the annual visual inspection, a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.
60.115b(a)(4)	After each inspection required by 40 CFR Part 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in 40 CFR Part 60.113b(a)(3)(ii), a report shall be furnished to TES within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of 40 CFR Part 60.112b(a)(1) or 40 CFR Part 60.113b(a)(3) and list each repair made.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

43. T091, Tank 141

Operations, Property and/or Equipment Description:

T091 - 20,050 bbl internal floating roof storage tank [Tank 141]; Group 1 storage vessel, single seal; primary seal - mechanical shoe

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-21-09(L)	See b)(2)a.
b.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	Table 6 of 40 CFR Part 63, Subpart CC "General Provisions Applicability to Subpart CC" provides applicability provisions, definitions, and other general provisions of 40 CFR Part 63, Subpart A that are applicable to this emissions unit.
When storing a material subject to the Group 1 storage vessel provisions of 40 CFR Part 63, subpart CC, comply with the following in lieu of the HON provisions of 40 CFR 63, subparts F and G for Group 2 tanks:		
c.	40 CFR Part 63, Subpart CC (40 CFR 63.640-656) [In accordance with 40 CFR 63.640(a), 63.640(c)(2) and 63.641, this emissions unit is subject to Subpart CC as a Group 1 storage vessel; it is associated with petroleum refining process units located at a plant site and that is a major source as defined in section 112(a) of the Clean Air Act; and meets the definition of a Group 1	In accordance with 63.646(a) the permittee of a Group 1 storage vessel subject to 40 CFR Part 63, Subpart CC shall comply with the requirements of 63.119 through 63.121 of 40 CFR 63, Subpart G, except as provided in 63.646(b) through 63.646(l). See b)(2)b. through b)(2)d.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	storage vessel as defined in 63.641.]	
When storing a Hazardous Organic NESHAP (HON) material subject to the Group 2 storage vessel provisions of 40 CFR Part 63, subparts F and G, comply with the following in lieu of the Group 1 storage vessel provisions of 40 CFR 63, subpart CC:		
d.	40 CFR Part 63, Subpart F (40 CFR 63.100-107) [In accordance with 40 CFR 63.100, the provisions of Subparts F, G, and H of this part apply to chemical manufacturing process units that meet all the criteria specified in 63.100(b) (i.e, located at a major source; manufactures a chemical listed in Table 1; and uses as a product one of the HAPs listed in Table 2). In accordance with 63.100(g), this storage vessel is a part of the chemical manufacturing process unit.]	This Subpart provides applicability provisions, definitions, and other general provisions that are applicable to Subpart G.
e.	40 CFR Part 63, Subpart G (40 CFR 63.110-153) [In accordance with 40 CFR 63.110(a), Subpart G is applicable to storage vessels located at a facility subject to Subpart F. This storage vessel is subject to Subpart G as an existing Group 2 storage vessel as defined in 63.111.]	In accordance with 40 CFR 63.119(a)(3), for each Group 2 storage vessel, the permittee shall comply with the record keeping requirements in 40 CFR Part 63.123(a) of Subpart G and is not required to comply with any other provisions in 40 CFR Part 63.119 through 63.123 of Subpart G.

(2) Additional Terms and Conditions

a. No fixed roof tank can store a petroleum liquid with a true vapor pressure greater than1.52 psi unless it is equipped with an internal floating roof.

b. MACT status (Group 1 or Group 2) is determined by the type of material being stored in the tank as defined by 40 CFR 63.641. If an existing tank changes from a Group 1 to Group 2 storage vessel where the material stored is less than 1.51 psia (maximum true vapor pressure) or 4% by weight of HAPS, then the tank is only subject to the recordkeeping requirements of 40 CFR 63.123(a) of Subpart

G and 63.655(i)(1)(iv) of Subpart CC and is not required to comply with any other provisions in 40 CFR 63.119 through 63.123 of Subpart G.

c. In accordance with 63.119(a)(1), the permittee shall reduce the emissions of HAPs to the atmosphere by operating and maintaining an internal floating roof in compliance with the applicable requirements in 63.119(b).

d. [63.646(g)]
Failure to perform inspections and monitoring required by 40 CFR Part 63.646, Subpart CC shall constitute a violation.

c) Operational Restrictions

(1) The permittee shall install the following equipment and shall maintain tank vents, seals, and or covers as follows:

a. The fixed roof storage tank shall be equipped with an internal floating roof.

b. The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports.

c. The rim vents, if present, shall be set to open or at the manufacturer's recommended setting when the roof is being floated off the roof leg supports.

d. All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-21-09(L)(1)]

When storing a material subject to the storage vessel provisions of 40 CFR Part 63, subpart CC:

(2) 40 CFR 63, Subpart CC – NESHAP FROM PETROLEUM REFINERIES - STORAGE VESSEL PROVISIONS
The permittee shall comply with the applicable operational restrictions required under 40 CFR Part 63, Subpart CC, including the following sections:

63.646(f)(1)	If a cover or lid is installed on an opening on a floating roof, the cover or lid shall remain closed except when the cover or lid must be open for access.
63.646(f)(2)	Rim space vents are to be set to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.
63.646(f)(3)	Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(3) [40 CFR 63, Subpart G] STORAGE VESSEL PROVISIONS [63.119(b)]
The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart G, including the following sections when storing a material subject to 40 CFR 63, subpart CC:

63.119(b)	For a fixed roof and an internal floating roof, comply with the requirements specified in 63.119(b)(1) and (b)(4), as provided in 63.646(c) of subpart CC. *Note***:** The intent of 40 CFR Part 63.119(b)(1) and (b)(2) of Subpart G is to avoid having a vapor space between the floating roof and the stored liquid for extended periods. Storage vessels may be emptied for purposes such as routine storage vessel maintenance, inspections, petroleum liquid deliveries, or transfer operations. Storage vessels where liquid is left on walls, as bottom clingage, or in pools due to floor irregularity are considered completely empty.
63.119(b)(1)	The internal floating roof shall be floating on the liquid surface at all times except during the periods listed in 63.119(b)(1)(i) through (iii).
63.119(b)(2)	When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical.
63.119(b)(3)	Each internal floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device shall consist of one of the following devices: a liquid-mounted seal; a metallic shoe seal or two seals mounted one above the other. The lower seal may be vapor-mounted, but both must be continuous seals.
63.119(b)(4)	Automatic bleeder vents are to be closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the roof leg supports.

d) Monitoring and/or Recordkeeping Requirements

(1) [OAC rule 3745-21-09(L)]
The permittee shall maintain records of the following information:

a. the types of petroleum liquids stored in the tank;

b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute; and

c. maintain a record of any period of time in which the automatic bleeder vents, rim vents, and all openings other than stub drains were not maintained as required in this permit and per the rules.

[Authority for term: OAC rule 3745-77-07(C)(1); OAC rule 3745-21-09(L)(1)(b) and (c) and (L)(4)]

When storing a material subject to the storage vessel provisions of 40 CFR Part 63, subpart CC:

(2) Compliance with the tank repair requirements in 40 CFR Part 63, Subpart CC has been determined to be as stringent or more stringent as the tank repair requirements of OAC rule 3745-21-09(L).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES
The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, subpart CC, including the following sections:

63.642(e)	Requirements for keeping all applicable reports and records required by this subpart for at least 5 years except as otherwise specified in this permit and be readily accessed within 24 hours.
63.646(b), (b)(1) and (b)(2)	*Storage Vessel Provisions:* All terms not defined in 63.641 shall have the meaning given them in 40 CFR Part 63, Subparts A or G. The Group 1 storage vessel definition presented in 40 CFR Part 63.641 apply in lieu of the Group 1 storage vessel definitions presented in tables 5 and 6 of 40 CFR Part 63.119 of Subpart G. Use good engineering judgment or test results to determine the stored liquid weight percent total organic HAP. Method 18 of 40 CFR Part 60, Appendix A shall be used to determine the average weight percent of organic HAP in the liquid if the permittee and Administrator do not agree.
63.646(e)	When complying with the inspection requirements of 40 CFR Part 63.120 of Subpart G, existing storage vessels are not required to comply with the provisions for gaskets, slotted membranes, and sleeve seals.
63.655(i)	*Recordkeeping Requirements*: Keep the storage vessel records specified in 63.123 of Subpart G except as specified in 63.655(i)(i) through (iv).

63.655(i)(1)(i)	Records related to gaskets, slotted membranes, and sleeve seals are not required for storage vessels within existing sources.
63.655(i)(1)(iv)	If a storage vessel is determined to be Group 2 storage vessel, a record of any data, assumptions, and procedures used to make this determination shall be retained.

(4) [40 CFR 63, Subpart G] NESHAP FROM THE SYNTHETIC ORGANIC CHEMICAL MANUFACTURING INDUSTRY
The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, subpart G, including the following sections:

63.120(a)	*Storage Vessel Provisions:* To demonstrate compliance with 63.119(b) or 63.119(d), comply with the requirements of 63.120(a)(1) through (a)(7).
63.123(a)	*Recordkeeping*: Keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 status and is in operation
63.123(c)	Keep records of each inspection required by 40 CFR 63.120(a).
63.123(g)	If an extension is requested for emptying a storage vessel per 40 CFR Part 63.120(a)(4), then keep in a readily accessible location, the documentation specified in 40 CFR Part 63.120(a)(4) as applicable.

When storing a Group 2 HON material subject to the provisions of 40 CFR Part 63, subparts F and G.

(5) If an operation change occurs, maintain a record of any data, assumptions, and procedures used to make the determination to ensure this storage vessel is still Group 2 per the definition in 40 CFR 63.111 when storing Group 2 HON materials.

(6) [40 CFR 63, Subpart G] NESHAP FROM THE SYNTHETIC ORGANIC CHEMICAL MANUFACTURING INDUSTRY
The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, subpart G, including the following sections:

63.123(a)	*Recordkeeping*: Keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel.

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the occurrence, of any period of time in which the automatic bleeder vents, rim vents, and all openings other than stub drains were not maintained as required in this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(L)(4)]

(3) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES
The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 63, Subpart CC, including the following sections:

63.646(l)	*Storage Vessel Provisions – Notification Requirements:* TES can waive the notification requirements of 40 CFR Part 63.120(a)(5), 63.120(a)(6), 63.120(b)(10)(ii), and 63.120(b)(10)(iii) for all or some storage vessels at petroleum refineries subject to this subpart. TES grants permission to Toledo Refining Co. to refill storage vessels seven days after submitting the notifications in 40 CFR Part 63.120(a)(6) or 63.120(b)(10)(iii) for all storage vessels at a refinery.
63.655 – Reporting Requirements	
63.655(g); (g)(1) and (g)(2)	Semiannual reporting requirements for storage vessels in regards to inspections.
63.655(h)(2)	*Storage Vessel Provisions – Notification Requirements:* Reports submitted for notifications of inspections as specified in 40 CFR Part 63.655(h)(2)(i)

(4) [40 CFR 63, Subpart G] NESHAP FROM THE SYNTHETIC ORGANIC CHEMICAL MANUFACTURING INDUSTRY

The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 63, Subpart G, including the following sections::

63.152 – General Reporting	
63.152(c)(4)	Submit a notification and compliance schedule in a periodic report if this Group 2 storage vessel becomes a Group 1 storage vessel, as defined in 40 CFR 63.111.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

44. T111, Tank 16015 - Hocking Valley Dock

Operations, Property and/or Equipment Description:

T111 - 78,000 bbl internal floating roof storage tank [Tank 16015 - Hocking Valley Dock]; Group 1 storage vessel, single seal; primary seal - flexible wiper.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-095 issued May 17, 1977)	The requirements established pursuant to this rule are equivalent to the requirements of OAC rule 3745-21-09(L).
b.	OAC rule 3745-21-09(L)	See b)(2)a. through b)(2)c.
c.	40 CFR Part 63, Subpart G (40 CFR 63.110-656) [If the permittee loads benzene, then in accordance with 40 CFR 63.110(a), this storage vessel is subject to Subpart G as an existing Group 1 storage vessel as defined in 63.111 as equipment as a source subject to Subpart F of this part.]	For each Group 1 storage vessel for which the maximum true vapor pressure of the total organic HAP in the liquid is <76.6 kilopascals, the permittee shall reduce hazardous air pollutants emissions to the atmosphere either by operating and maintaining a fixed roof and internal floating roof or an external floating roof converted to an internal floating roof in accordance with the requirements in 63.119. See b)(2)d. and g)(1)

(2) Additional Terms and Conditions

a. The fixed roof storage tank shall be equipped with an internal floating roof.

b. The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports, and the rim vents, if provided, shall

be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

c. All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

d. The permittee is prohibited from storing material that would be subject to 40 CFR Part 63, Subpart G unless the permittee complies with term g)(1) below.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain records of the following information:

a. the types of petroleum liquids stored in the tank; and

b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

[Authority for term: OAC rule 3745-21-09(L)(3)]

e) Reporting Requirements

(1) The permittee shall notify Toledo Environmental Services in writing if benzene or any other HON regulated substances are stored in this tank or if there is any deviation of term b)(2)d. This notification shall be sent within thirty days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) Should the loading of benzene resume in this storage vessel, the permittee shall also comply with the applicable portions of 40 CFR Part 61, Subparts A, J and V; 40 CFR Part 63, Subparts F and H; and 40 CFR Part 63.119(b) and 63.120(a), Subpart G (refer to the terms and conditions in emissions unit T098 in this permit).

[Authority for term: OAC rule 3745-77-07(C)(1)]

45. T128, Tank 511

Operations, Property and/or Equipment Description:

T128 - 60,000 bbl internal floating roof storage tank [Tank 511]; wastewater storage tank, single seal; primary seal - mechanical shoe

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-00480 issued 9/21/88)	The total combined emissions for emissions units T127 and T128 shall not exceed 2.72 tons of organic compounds (OC) per year. The annual emission limitation was established for PTI purposes to reflect the potential to emit for these emission units based on maximum annual throughput and maximum true vapor pressure. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(L).
b.	OAC rule 3745-21-09(L)	See b)(2)a.
c.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	Table 6 of 40 CFR Part 63, Subpart CC "General Provisions Applicability to Subpart CC" provides applicability provisions, definitions, and other general provisions of 40 CFR Part 63, Subpart A that are applicable to this emissions unit.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	40 CFR Part 63, Subpart CC (40 CFR 63.640-656) [In accordance with 40 CFR 63.640(a), 63.640(c)(3) and 63.641, this emissions unit is subject to Subpart CC as part of a petroleum refining process unit located at a plant site that is a major source as defined in section 112(a) of the Clean Air Act; and meets the definition of a tank storing a Benzene Waste Operations NESHAP (BWON) regulated material as defined in 63.641.]	In accordance with 63.647(a) and 63.655(a), the permittee of a storage tank containing a BWON regulated material shall comply with the requirements of 61.340 through 61.357 of 40 CFR 61, Subpart FF. See b)(2)b., and b)(2)c.
e.	40 CFR Part 61, Subpart FF (40 CFR 61.340-358) [In accordance with 40 CFR 61.340(a) and (b), this emissions unit is subject to Subpart FF as a storage vessel holding BWON regulated material at a petroleum refinery.]	In accordance with 40 CFR 61.351(a), as an alternative to the standards for tanks specified in 61.343, the permittee elects to comply with subpart FF by having a fixed roof and internal floating roof meeting the requirements of 40 CFR 60.112b(a)(1) of 40 CFR 60, Subpart Kb.
f.	40 CFR Part 60, Subpart Kb (40 CFR 60.110b – 117b) [In accordance with 40 CFR 60.110b, this emissions unit is a storage vessel with a design capacity greater than 151 m^3 with a maximum true vapor pressure greater than 3.5 kilopascals that was reconstructed or modified after July 23, 1984.]	In accordance with 60.112b(a), the permittee shall equip the storage vessel with a fixed roof in combination with an internal floating roof meeting the specifications in 60.112b(a)(1).

(2) Additional Terms and Conditions

a. No fixed roof tank can store a petroleum liquid with a true vapor pressure greater than 1.52 psi unless it is equipped with an internal floating roof.

b. In accordance with 63.611, the definition for storage vessels exempts wastewater storage tanks from the storage vessel provisions of 40 CFR 63.646, Subpart CC.

c. MACT status (Group 1 or Group 2) is determined by the type of material being stored in the tank as defined by 40 CFR 63.641. If an existing tank changes from a Group 1 to Group 2 storage vessel where the material stored is less than 1.51 psia (maximum true vapor pressure) or 4% by weight of HAPS, then the tank is only subject to the recordkeeping requirements of 40 CFR 63.123(a) of Subpart G and 63.655(i)(1)(iv) of Subpart CC and is not required to comply with any other provisions in 40 CFR 63.119 through 63.123 of Subpart G.

c) Operational Restrictions

(1) The permittee shall install the following equipment and shall maintain tank vents, seals, and or covers as follows:

a. The fixed roof storage tank shall be equipped with an internal floating roof.

b. The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports.

c. The rim vents, if present, shall be set to open or at the manufacturer's recommended setting when the roof is being floated off the roof leg supports.

d. All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-21-09(L)(1)]

(2) [40 CFR 61, Subpart FF] – NATIONAL EMISSION STANDARDS FOR BENZENE WASTE OPERATIONS
The permittee shall comply with the applicable restrictions required under 40 CFR 61, Subpart FF that defers to 40 CFR Part 60, Subpart Kb, including the following sections:

40 CFR 61.351(a) of Subpart FF	As an alternative to the standards for tanks specified in 61.343 of this subpart, the permittee may elect to comply with the fixed roof and internal floating roof meeting the requirements in 40 CFR 60.112b(a)(1) of 40 CFR 60, subpart Kb.
40 CFR 60, Subpart Kb – Storage Vessel Provisions The permittee shall comply with the applicable restrictions required under 40 CFR Part 60, Subpart Kb, including the following sections:	
60.112b(a)	Equip each storage vessel with a fixed roof in combination with an internal floating roof meeting the following specifications in 60.112b(a)(1).
60.112b(a)(1)(i)	The internal floating roof shall rest or float on the liquid

	surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.
60.112b(a)(1)(ii)	Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof as stated in 60.112(a)(1)(ii)(A) through (C).
60.112b(a)(1)(iii)	Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.
60.112b(a)(1)(iv)	Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.
60.112b(a)(1)(v)	Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.
60.112b(a)(1)(vi)	Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.
60.112b(a)(1)(vii)	Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
60.112b(a)(1)(viii)	Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
60.112b(a)(1)(ix)	Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain records of the following information:

a. the types of petroleum liquids stored in the tank;

b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute; and

c. maintain a record of any period of time in which the automatic bleeder vents, rim vents, and all openings other than stub drains were not maintained as required in this permit and per the rules.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(L)(3) and (L)(4)]

(2) Compliance with the tank repair requirements in 40 CFR Part 61, Subpart FF has been determined to be as stringent or more stringent as the tank repair requirements of OAC rule 3745-21-09(L).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) [40 CFR 61, Subpart FF] – NATIONAL EMISSION STANDARDS FOR BENZENE WASTE OPERATIONS
The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 61, subpart FF, including the following sections:

40 CFR 61.356(k)	The permittee who elects the alternative to the standards for tanks specified in 61.351 of Subpart FF shall comply with the recordkeeping requirements in 40 CFR 60.115b of 40 CFR 60, Subpart Kb.
40 CFR 60, Subpart Kb – Storage Vessel Provisions The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 60, subpart Kb, including the following sections:	
60.115b(a)(2)	*Recordkeeping Requirements*: Keep a record of each inspection performed as required by 40 CFR Part 60.113b(a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).
60.113b - Inspections	
60.113b(a)(1)	*Inspections prior to filling the tank*: Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one

	is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, then repair the items before filling the storage vessel.
60.113b(a)(2)	*Annual Inspections*: For vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, then repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections and cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in 40 CFR Part 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.
60.113b(a)(3)	For vessels equipped with a double-seal system as specified in 40 CFR Part 60.112b(a)(1)(ii)(B): - visually inspect the vessel as specified in 40 CFR Part 60.113b(a)(4) at least every 5 years; or -visually inspect the vessel as specified in 40 CFR Part 60.113b(a)(2).
60.113b(a)(4)	*Inspections when tank is emptied and degassed*: Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the permittee shall repair the items as necessary so that None of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this

	provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in 40 CFR Part 60.113b(a)(2).

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the occurrence, of any period of time in which the automatic bleeder vents, rim vents, and all openings other than stub drains were not maintained as required in this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(L)(4)]

(3) [40 CFR 61, Subpart FF] – NATIONAL EMISSION STANDARDS FOR BENZENE WASTE OPERATIONS
The permittee shall submit the following reports and such other notifications and reports to the appropriate Ohio EPA District office or local air agency as are required pursuant to 40 CFR 61, Subpart FF, including the following sections:

40 CFR 61.357(f)	The permittee who elects the alternative to the standards for tanks specified in 61.351 of Subpart FF shall comply with the reporting requirements in 40 CFR 60.115b of 40 CFR 60, Subpart Kb.
40 CFR 60, Subpart Kb – Storage Vessel Provisions The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 60, Subpart Kb, including the following sections:	
60.115b(a)(3)	If any of the conditions described in 40 CFR Part 60.113b(a)(2) are detected during the annual visual inspection, a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.
60.115b(a)(4)	After each inspection required by 40 CFR Part 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in 40 CFR Part 60.113b(a)(3)(ii), a report shall be furnished to TES within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet

	the specifications of 40 CFR Part 60.112b(a)(1) or 40 CFR Part 60.113b(a)(3) and list each repair made.

f) Testing Requirements

(1) Compliance with the combined OC emission limitation shall be determined using the latest version of TANKS software (TANKS 4) or equivalent, using the annual throughput and annual average vapor pressure. This annual emission limit shall be added to the calculated annual emission limit from emissions unit T127.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

46. T157, Tank 195

Operations, Property and/or Equipment Description:

T157 - 25,500 bbl internal floating roof storage tank [Tank 195]; Group 1 storage vessel, single seal; primary seal - mechanical shoe.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 04-904 issued 10/5/94)	1.04 tpy of volatile organic compounds (VOC) 1.04 tpy of benzene The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(L) See b)(2)g.
b.	OAC rule 3745-21-09(L)	See b)(2)a.
c.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	In accordance with 63.103(a), Table 3 of 40 CFR Part 63, Subpart F provides applicability provisions, definitions, and other general provisions of 40 CFR Part 63, Subpart A that are applicable to this emissions unit.
d.	40 CFR Part 63, Subpart F (40 CFR 63.100-107) [In accordance with 40 CFR 63.100, this emissions unit is a chemical manufacturing process unit located at a facility meeting the criteria specified in 63.100(b).]	40 CFR Part 63, Subpart F, provides applicability provisions, definitions, and other general provisions that are applicable to 40 CFR 63, Subpart G. See b)(2)b.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	40 CFR Part 63, Subpart G (40 CFR 63.110-153) [In accordance with 40 CFR 63.110(a), Subpart G is applicable to storage vessels located at a facility subject to Subpart F. This storage vessel is subject to Subpart G as an existing Group 1 storage vessel as defined in 63.111.]	In accordance with 63.119, for each Group 1 storage vessel for which the maximum true vapor pressure of the total organic HAP in the liquid is <76.6 kilopascals, the permittee shall reduce hazardous air pollutants emissions to the atmosphere by operating and maintaining a fixed roof and internal floating roof. See b)(2)c. through b)(2)f.
f.	40 CFR 60, Subpart Kb 40 CFR 61, Subpart Y	In accordance with 40 CFR 63.110(b)(1) and (2), a Group 1 storage vessel subject to 40 CFR 61, Subpart Y or 40 CFR 60, Subpart Kb are required to comply only with the provisions of 40 CFR 63, Subpart G.

(2) Additional Terms and Conditions

a. No fixed roof tank can store a petroleum liquid with a true vapor pressure greater than 1.52 psi unless it is equipped with an internal floating roof.

b. The permittee shall comply with all applicable portions of 40 CFR Part 63.103 of Subpart F.

c. Per 40 CFR 63, Subpart G, MACT status (Group 1 or Group 2) is determined by the type of material being stored in the tank as defined by 40 CFR 63.111. If a tank changes from a Group 1 to Group 2 storage vessel where the material stored is less than 0.75 psia (vapor pressure), then the tank is only subject to the recordkeeping requirements of 40 CFR 63.123(a) of Subpart G and is not required to comply with any other provisions in 40 CFR 63.119 through 63.123 of Subpart G.

d. [63.119(b)]
The permittee who uses a fixed roof and an internal floating roof shall comply with the requirements specified in 40 CFR Part 63.119(b)(1) through b)(6).

e. [63.110(b)(2)]
After the compliance dates for an existing source (April 22, 1997), a Group 1 storage vessel that is also subject to the provisions of 40 CFR 61 Subpart Y is required to comply only with the provisions of 40 CFR Part 63, Subpart G.

f. [63.110(b)(1)]

After the compliance date for an existing source (April 22, 1997), a Group 1 or Group 2 storage vessel that is also subject to the provisions of 40 CFR Part 60, Subpart Kb is required to comply only with the provisions of 40 CFR Part 63, Subpart G.

g. The annual emission limitations were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.

c) Operational Restrictions

(1) The permittee shall install the following equipment and shall maintain tank vents, seals, and or covers as follows:

a. The fixed roof storage tank shall be equipped with an internal floating roof.

b. The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports.

c. The rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.

d. All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-21-09(L)(1)]

(2) [40 CFR 63, Subpart G] STORAGE VESSEL PROVISIONS [63.119(b)]
The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart G, including the following sections:

63.119(b)	The operator who elects to use a fixed roof and an internal floating roof shall comply with 63.119(b)(1) through (b)(6). [Note: The intent of 40 CFR Part 63.119(b)(1) and (b)(2) of Subpart G is to avoid having a vapor space between the floating roof and the stored liquid for extended periods. Storage vessels may be emptied for purposes such as routine storage vessel maintenance, inspections, petroleum liquid deliveries, or transfer operations. Storage vessels where liquid is left on walls, as bottom clingage, or in pools due to floor irregularity are considered completely empty.]
63.119(b)(1)	The internal floating roof shall be floating on the liquid surface at all times except during the periods listed in 63.119(b)(1)(i) through (iii).
63.119(b)(2)	When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and

	shall be accomplished as soon as practical.
63.119(b)(3)	Each internal floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device shall consist of one of the following devices: a liquid-mounted seal; a metallic shoe seal or two seals mounted one above the other. The lower seal may be vapor-mounted, but both must be continuous seals.
63.119(b)(4)	Automatic bleeder vents are to be closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the roof leg supports.
63.119(b)(5)	Each internal floating roof shall meet the specifications listed in 40 CFR Part 63.119(b)(5)(i) through (b)(5)(vii).
63.119(b)(5)(i)	Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and rim space vents is to provide a projection below the liquid surface.
63.119(b)(5)(ii)	Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains shall be equipped with a cover or lid. The cover or lid shall be equipped with a gasket.
63.119(b)(5)(iii)	Each penetration of the internal floating roof for the purposes of sampling shall be a sample well. Each sample well shall have a slit fabric cover that covers at least 90 percent of the opening.
63.119(b)(5)(iv)	Each automatic bleeder vent shall be gasketed.
63.119(b)(5)(v)	Each rim space vent shall be gasketed.
63.119(b)(5)(vi)	Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.
63.119(b)(5)(vii)	Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

63.119(b)(6)	Each cover or lid on any opening in the internal floating roof shall be closed (i.e., no visible gaps), except when the cover or lid must be open for access. Covers on each access hatch and each gauge float well shall be bolted or fastened so as to be air-tight when they are closed. Rim space vents are to be set to open only when the internal floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain records of the following information:

a. the types of petroleum liquids stored in the tank; and

b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(L)(3)]

(2) Compliance with the tank repair requirements in 40 CFR Part 63, Subpart G has been determined to be as stringent or more stringent as the tank repair requirements of OAC rule 3745-21-09(L).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) [40 CFR 63, Subpart G] NESHAP FROM THE SYNTHETIC ORGANIC CHEMICAL MANUFACTURING INDUSTRY
The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, subpart G, including the following sections:

63.120(a)	*Storage Vessel Provisions:* To demonstrate compliance with 63.119(b) or 63.119(d), comply with the requirements of 63.120(a)(1) through (a)(7).
63.123(a)	*Recordkeeping*: Keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel.
63.123(c)	Keep records of each inspection required by 40 CFR 63.120(a).
63.123(g)	If an extension is requested for emptying a storage vessel per 40 CFR Part 63.120(a)(4), then keep in a readily accessible location, the documentation specified in 40 CFR Part 63.120(a)(4) as applicable.

e) Reporting Requirements

(1) [40 CFR 63, Subpart G] NESHAP FROM THE SYNTHETIC ORGANIC CHEMICAL MANUFACTURING INDUSTRY
The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 63, Subpart G, including the following sections:

63.120 – Inspection Notifications	
63.120(a)(5)	Except as provided in 40 CFR Part 63.120(a)(6), for all the inspections required by 40 CFR Part 63.120(a)(2)(ii), (a)(3)(i), and (a)(3)(iii), the permittee shall notify the Administrator in writing at least 30 calendar days prior to the refilling of each storage vessel to afford the Administrator the opportunity to have an observer present. TES grants permission to Toledo Refining Co. to refill storage vessels seven days after submitting the notifications in 40 CFR Part 63.120(a)(6) or 63.120(b)(10)(iii) for all storage vessels at a refinery.
63.120(a)(6)	If the inspection required by 40 CFR 63.120(a)(2)(ii), (a)(3)(i), or (a)(3)(iii) is not planned and the permittee could not have known about the inspection 30 calendar days in advance of refilling the vessel, the permittee shall notify the Administrator at least 7 calendar days prior to the refilling of the storage vessel. Notification may be made by telephone and immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, the notification including the written documentation may be made in writing and sent so that it is received by the Administrator at least 7 calendar days prior to refilling. TES grants permission to Toledo Refining Co. to refill storage vessels seven days after submitting the notifications in 40 CFR Part 63.120(a)(6) or 63.120(b)(10)(iii) for all storage vessels at a refinery.
63.122 – Storage Vessel Provision - Reporting	
63.122(a)(4)	Submit Periodic Reports as required by 40 CFR 63.152 (c) and submit as part of the Periodic Reports the information specified in 40 CFR Part 63.122(d).
63.122(a)(5)	Submit, as applicable, other reports as required by 40 CFR 63.152(d), containing the information specified in 40 CFR

	63.122(h)
63.122(d)	Submit, as part of the Periodic Report required under 40 CFR Part 63.152(c), the results of each inspection conducted in accordance with 40 CFR Part 63.120(a) in which a failure is detected in the control equipment. See 63.122(d)(1) and (d)(2) for the required information to submit.
63.122(h)	In order to afford the Administrator the opportunity to have an observer present, the permittee shall notify the Administrator of the refilling of a storage vessel that has been emptied and degassed. The notification shall meet the requirements of either 40 CFR Part 63.120(a)(5) or (a)(6), as applicable. TES grants permission to Toledo Refining Co. to refill storage vessels seven days after submitting the notifications in 40 CFR Part 63.120(a)(6) or 63.120(b)(10)(iii) for all storage vessels at a refinery.
63.152 – General Reporting for Periodic Reports and Other Reports	
63.152(c), (c)(1) and (c)(2)	Submit semiannual Periodic Reports and include all information specified in 40 CFR Part 63.122 for storage vessels, including reports of periods when monitored parameters are outside their established ranges.
63.152(d) and (d)(2)	Other reports shall be submitted as specified in 40 CFR Part 63, Subpart A or in 40 CFR Part 63.122. The reports for storage vessels are the notifications of inspections required by 40 CFR Part 63.122(h)(1) and (h)(2).

f) Testing Requirements

(1) Compliance with the benzene and VOC emission limitations shall be determined using the latest version of TANKS software (TANKS 4) or equivalent, using the annual throughput and annual average vapor pressure. All of the benzene is considered a VOC for purposes of calculating the emission limits.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

47. Emissions Unit Group - B1-heaters spJ, sp DDDDD & SIP: B006, B008, B009, B010, B014, B015, B016, B017, B018, B019, B021, B022, B026, B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, and B052

EU ID	Operations, Property and/or Equipment Description
B006	65 mmBtu per hour Petro Chem heater [H501] fired with refinery fuel gas, a mixture of refinery process gas, landfill gas and natural gas, which may be fired individually or in combination.
B008	65 mmBtu per hour Petro Chem heater [H503] fired with refinery fuel gas, a mixture of refinery process gas, landfill gas and natural gas, which may be fired individually or in combination.
B009	65 mmBtu per hour Petro Chem heater [H504] fired with refinery fuel gas, a mixture of refinery process gas, landfill gas and natural gas, which may be fired individually or in combination.
B010	115 mmBtu per hour Alcorn Combustion heater [H507] fired with refinery fuel gas, a mixture of refinery process gas, landfill gas and natural gas, which may be fired individually or in combination.
B014	63 mmBtu per hour Procon Inc. heater [H601A] fired with refinery fuel gas, a mixture of refinery process gas, landfill gas and natural gas, which may be fired individually or in combination.
B015	63 mmBtu per hour Procon Inc. heater [H601B] fired with refinery fuel gas, a mixture of refinery process gas, landfill gas and natural gas, which may be fired individually or in combination.
B016	76 mmBtu per hour Procon Inc. heater [H602] fired with refinery fuel gas, a mixture of refinery process gas, landfill gas and natural gas, which may be fired individually or in combination.
B017	42 mmBtu per hour Procon Inc. heater [H603] fired with refinery fuel gas, a mixture of refinery process gas, landfill gas and natural gas, which may be fired individually or in combination.
B018	108 mmBtu per hour Selas Corp. heater [H6104] fired with refinery fuel gas, a mixture of refinery process gas, landfill gas and natural gas, which may be fired individually or in combination.
B019	70 mmBtu per hour Alcorn heater [H6301] fired with refinery fuel gas, a mixture of refinery process gas, landfill gas and natural gas, which may be fired individually or in combination.
B021	28 mmBtu per hour Born heater [H6303] fired with refinery fuel gas, a mixture of refinery process gas, landfill gas and natural gas, which may be fired individually or in combination.
B022	126 mmBtu per hour Alcorn heater [H6304] fired with refinery fuel gas, a mixture of refinery process gas, landfill gas and natural gas, which may be fired individually or in combination.

EU ID	Operations, Property and/or Equipment Description
B026	80 mmBtu per hour Alcorn heater [H9201] fired with refinery fuel gas, a mixture of refinery process gas, landfill gas and natural gas, which may be fired individually or in combination.
B027	71 mmBtu per hour Alcorn heater [H9202] fired with refinery fuel gas, a mixture of refinery process gas, landfill gas and natural gas, which may be fired individually or in combination.
B028	27 mmBtu per hour Alcorn heater [H9203] fired with refinery fuel gas, a mixture of refinery process gas, landfill gas and natural gas, which may be fired individually or in combination.
B029	62 mmBtu per hour Born heater [H9251] fired with refinery fuel gas, a mixture of refinery process gas, landfill gas and natural gas, which may be fired individually or in combination.
B030	87 mmBtu per hour Born heater [H9252A] fired with refinery fuel gas, a mixture of refinery process gas, landfill gas and natural gas, which may be fired individually or in combination.
B031	87 mmBtu per hour Born heater [H9252B] fired with refinery fuel gas, a mixture of refinery process gas, landfill gas and natural gas, which may be fired individually or in combination.
B032	120 mmBtu per hour Alcorn heater [H9302] fired with refinery fuel gas, a mixture of refinery process gas, landfill gas and natural gas, which may be fired individually or in combination.
B033	217 mmBtu per hour Alcorn heater [H9301] fired with refinery fuel gas, a mixture of refinery process gas, landfill gas and natural gas, which may be fired individually or in combination.
B034	64 mmBtu per hour Alcorn heater [H9303] fired with refinery fuel gas, a mixture of refinery process gas, landfill gas and natural gas, which may be fired individually or in combination.
B035	42 mmBtu per hour Alcorn heater [H9304] fired with refinery fuel gas, a mixture of refinery process gas, landfill gas and natural gas, which may be fired individually or in combination.
B036	14 mmBtu per hour Born heater [H9305] fired with refinery fuel gas, a mixture of refinery process gas, landfill gas and natural gas, which may be fired individually or in combination.
B052	7.4 mmBtu per hour Born heater [H9512] fired with refinery fuel gas, a mixture of refinery process gas, landfill gas and natural gas, which may be fired individually or in combination.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not

exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI P0107345 issued March 2011)	The permittee requested that this unit become an affected facility subject to the requirements of 40 CFR Part 60, Subparts A and J. See b)(2)a., b)(2)b. and b)(2)c. [Per the Consent Decree (section G.36.) as entered on March 14, 2006, all heaters and boilers shall become affected facilities subject to the requirements of NSPS Subpart J for fuel gas combustion devices by Dec. 31, 2009.]
b.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
c.	OAC rule 3745-17-10(B)(1)	0.020 pound of particulate emissions per mmBtu of actual heat input
d.	OAC rule 3745-18-54(O)(1) (*NOTE: does not apply to B010*)	0.04 pound of sulfur dioxide (SO_2) per mmBtu of actual heat input
e.	*Applicable to emission unit B010*: OAC rule 3745-18-54(O)(5)	See b)(2)d.
f.	40 CFR Part 63, Subpart DDDDD	Applicable Emission Limits in Tables 1 and 2; Work Practice Standards in Table 3 and Operating Limits in Table 4 to Subpart DDDDD of 40 CFR Part 63 (subject to change based on the issuance of the Final Action on Reconsideration of 40 CFR Part 63, Subpart DDDDD by U.S. EPA). See b)(2)e.
h.	40 CFR 60, Subpart J (40 CFR 60.100-109) [Per the Consent Decree (section	See b)(2)a., b)(2)b. and b)(2)c.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	G.36.) as entered on March 14, 2006, all heaters and boilers shall become affected facilities subject to the requirements of NSPS Subpart J for fuel gas combustion devices by Dec. 31, 2009.]	
i.	*Applicable to emission unit B018*: OAC rule 3745-31-05(D) (PTI 04-01421 issued 12/20/2005 and PTI P0107345 issued April 2011)	0.04 pound of nitrogen oxides (NOx) per mmBtu of actual heat input

(2) Additional Terms and Conditions

a. [60.104(a)(1)]
The permitee shall not burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H_2S) in excess of 230 mg/dscm (0.10 gr/dscf). The combustion in a flare of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from this paragraph

b. The permittee shall maintain a written quality assurance/quality control plan for the continuous hydrogen sulfide monitoring system, designed to ensure continuous valid and representative readings of hydrogen sulfide emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

[40 CFR 60.13] and [40 CFR Part 60, Appendix F]

c. The continuous emission monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

[40 CFR 60.2] and/or [40 CFR 63.2] and [Appendix F to 40 CFR Part 60]

d. On March 24, 2011, OAC rule 3745-18-54(O) was revised in its entirety; therefore, the 18-54(O) rule that was in effect prior to this date is no longer part of the State regulations. The rule revision will be submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-18-54, the requirement to comply with the previous 18-54 rule provisions still exists as part of the federally-approved SIP for Ohio. The following emission limitation for emissions unit B010 (Heater number H-507) shall become void after U.S. EPA approves the rule revision: a maximum of 1.60 pounds of sulfur dioxide per MM Btu actual heat input from the heater.

The new emission limitation shall be: For heater H-507 (B010), the permittee shall not burn fuel oil, and shall comply with 40 CFR Part 60, Subpart J, "Standards of Performance for Petroleum Refineries".

e. The requirements of 40 CFR Part 63, Subpart DDDDD are currently effective due to the January 9, 2012 decision by the United States District Court for the District of Columbia to vacate the administrative stay that U.S. EPA put in place during the reconsideration of the March, 2011 final rules. On February 7, 2012, U.S. EPA issued a "No Action Assurance" letter to facilities and indicated that U.S. EPA will exercise its enforcement discretion to not pursue enforcement action of violations of the Initial Notification deadlines established in the rule. This letter further notes that U.S. EPA has proposed revisions to the compliance dates for all units (the date by which a unit must be in compliance with the substantive requirements in the Boiler MACT rule) and to the subcategories for some units. U.S. EPA plans to issue a Final Action on Reconsideration of 40 CFR Part 63, Subpart DDDDD in the spring of 2012.

c) Operational Restrictions

(1) The permittee shall burn only refinery fuel gas in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1)]

(2) The quality of the refinery fuel gas burned in this emissions unit shall meet, on an "as burned" basis, a sulfur content that is sufficient to comply with the allowable SO_2 emission limitation of 0.04 pound of SO_2 per mmBtu of actual heat input.

[Authority for term: OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than refinery fuel gas, the permittee shall maintain a record of the type, quantity, sulfur content in pound(s) of sulfur per mmdscf, and heating value in Btu/dscf of the fuel burned.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) REFINERY FUEL GAS SAMPLING:

The permittee shall collect samples of the refinery fuel gas system Monday through Friday (except holidays) for gas chromatographic analysis or other approved analytical method. Each normal sample point shall be collected at least two times per week in accordance with the schedule developed by the permittee. Each sample shall be collected in a sample bag, bomb, cylinder or similar device suitable for the designated analytical method.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall maintain records on the laboratory method used to conduct compositional analysis of the refinery fuel gas. The method shall be reported to Toledo Environmental Services in the periodic report. Any standard ASTM method may be used.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain daily records of the actual heating value of the refinery fuel gas. The actual heating value (H) of the refinery fuel gas shall be calculated from the results of a fuel gas compositional analysis using gas chromatography and the results maintained in units of Btu/scf.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall maintain records of the average H_2S content (in ppmv) for the refinery fuel gas for each day, and which hydrogen sulfide continuous emissions monitoring system (H_2S CEMS) was used to obtain the data (i.e., from which of the following emissions units: B048, B050, B051).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall maintain daily records (Monday through Friday) of the average SO_2 emission rate for the refinery fuel gas. The SO_2 emission rate shall be calculated as follows:

ERG = ((14.696)*S*(32)*(1.998))/(H*(10.73)*(520))

Where:

ERG = average SO_2 emission rate, in pounds SO_2 per mmBtu for each day;

14.696 = standard pressure, psia;

S = daily average H_2S content of refinery fuel gas, ppmv;

32 = molecular weight of sulfur, lb per lb-mole;

1.998 = lb of SO_2 per lb sulfur;

H = daily average heat content, Btu/scf (STP at 14.696 psia and 520 ºR);

10.73 = ideal gas constant, psia-cubic feet/lb-mole ºR);

520 = standard temperature, ºR

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-18-04(F)(3)]

(7) HYDROGEN SULFIDE CEM
The permittee shall maintain on site, the document of certification received from the U.S. EPA or the Ohio EPA's Central Office documenting that the continuous hydrogen sulfide monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 7. The letter/document of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendix B]

(8) The permittee shall operate and maintain equipment to continuously monitor and record hydrogen sulfide emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

The permittee shall maintain records of data obtained by the continuous hydrogen sulfide monitoring system including, but not limited to:

a. emissions of hydrogen sulfide in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;

b. emissions of hydrogen sulfide, in all units of the applicable standard(s) and in the appropriate averaging period;

c. results of quarterly cylinder gas audits;

d. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;

e. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

f. hours of operation of the emissions unit, continuous hydrogen sulfide monitoring system, and control equipment;

g. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous hydrogen sulfide monitoring system;

h. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous hydrogen sulfide monitoring system; as well as,

i. the reason (if known) and the corrective actions taken (if any) for each such event in (g) and (h).

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

[Authority for term: 40 CFR 60.13 and 40 CFR Part 60, Appendices B & F]

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than refinery fuel gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly deviation (excursion) reports that identify each average SO_2 emission rate, as calculated in d) above, that exceeded the SO_2 emission limitation of 0.04 pound of SO_2 per mmBtu of actual heat input for the burning of refinery fuel gas.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous hydrogen sulfide monitoring system:

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of hydrogen sulfide emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as, the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).

b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

i. the facility name and address;

ii. the manufacturer and model number of the continuous hydrogen sulfide and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;

v. the total operating time (hours) of the emissions unit;

vi. the total operating time of the continuous hydrogen sulfide monitoring system while the emissions unit was in operation;

vii. results and dates of quarterly cylinder gas audits;

viii. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

ix. unless previously submitted, the results of any relative accuracy test audit showing the continuous hydrogen sulfide monitor out-of-control and the compliant results following any corrective actions;

x. the date, time, and duration of any/each malfunction** of the continuous hydrogen sulfide monitoring system, emissions unit, and/or control equipment;

xi. the date, time, and duration of any downtime** of the continuous hydrogen sulfide monitoring system and/or control equipment while the emissions unit was in operation; and

xii. the reason (if known) and the corrective actions taken (if any) for each event in b.x. and .xi.

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

** each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit

[Authority for term: 40 CFR 60.7]

(5) The deviation reports shall be submitted in accordance with the requirements specified in Section A - Standard Terms and Conditions A.2.c).

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(1).

b. Emission Limitation:

0.020 pound of particulate emissions per mmBtu of actual heat input

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures specified in OAC rule 3745-17-03(B)(9).

c. Emission Limitation:

0.04 pound of SO_2 per mmBtu of actual heat input

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures of OAC rule 3745-18-04(E)(1).

d. Emission Limitation:

Refinery fuel gas shall not contain hydrogen sulfide (H_2S) in excess of 230 mg/dscm (0.10 gr/dscf)

Applicable Compliance Method:

Ongoing compliance with the hydrogen sulfide emission limitation(s) contained in this permit, 40 CFR Part 60, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the requirements of 40 CFR Part 60.

[40 CFR 60.13 and 40 CFR Part 60, Appendices B & F]

e. *Applicable to emission unit B018*:
Emission Limitation:

0.04 pound of nitrogen oxides (NOx) per mmBtu of actual heat input

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 7 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

48. Emissions Unit Group - J1-LR spFGH & SIP: J001, J002,

EU ID	Operations, Property and/or Equipment Description
J001	#1 and #2 railcar loading rack for xylene and toluene - Group 2 loading rack (formerly Z003)
J002	Toluene and xylene loading rack for petroleum products - out of service (formerly Z004)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	40 CFR Part 63, Subpart F (40 CFR 63.100-107) [In accordance with 40 CFR 63.100(e), this emissions unit is a Group 2 transfer rack subject to the emissions limitations/control measures specified in this section]	See b)(2)a. and (2)b.
b.	40 CFR Part 63, Subpart G (40 CFR 63.110-153) [In accordance with 40 CFR 63.126(c), this emissions unit is a Group 2, transfer rack subject to the emissions limitations/control measures specified in this section]	See d)(1)
c.	40 CFR Part 63, Subpart H (40 CFR 63.160-183) [In accordance with 40 CFR 63.160(a), this emissions unit has equipment subject to the HON LDAR	See b)(2)c. and (2)e.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	program subject to the emission limitations/control measures specified in this section.]	
d.	40 CFR Part 63, Subpart A (40 CFR 63.1-15)	Table 3 of 40 CFR Part 63, Subpart F specifies the provisions of Subpart A that apply.
e.	OAC rule 3745-21-09(T)	See b)(2)d.

(2) Additional Terms and Conditions

a. In accordance with 40 CFR Part 63.102(a) and 63.103(a), emissions units subject to 40 CFR Part 63, Subpart F are also subject to 40 CFR Part 63, Subparts G and H, and the appropriate sections of 40 CFR Part 63, Subpart A, as determined by Table 3 of Subpart F.

b. [63.100(a)]
This Subpart provides applicability provisions, definitions, and other general provisions that are applicable to 40 CFR Part 63, Subparts G and H.

c. [63.160]

i. [63.160(a)]
This Subpart applies to equipment leaks from pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, instrumentation systems, and control devices or systems that are intended to operate in organic hazardous air pollutant service 300 hours or more during the calendar year.

ii. [63.160(b)]
Equipment leaks that are also subject to the provisions of 40 CFR Parts 60 and 61 are required to comply only with the provisions specified in 40 CFR Part 63, Subpart H.

iii. [63.160(c)]
If a process unit subject to the provisions of this Subpart has equipment to which this Subpart does not apply, but which is subject to 40 CFR Part 60, Subpart VV or GGG, the permittee may elect to apply this Subpart to all such equipment in the process unit. If the permittee elects this method of compliance, all VOC in such equipment shall be considered, for purposes of applicability and compliance with this Subpart, as if it were organic hazardous air pollutant (HAP). Compliance with the provisions of this Subpart, in the manner described in this paragraph, shall be deemed to constitute compliance with 40 CFR Part 60, Subpart VV or GGG

iv. [63.160(d)]
The provisions in 40 CFR Part 63.1(a)(3) of Subpart A do not alter the provisions in 63.160(b).

v. [63.160(e)]
Except as provided in any Subpart that references Subpart H, lines and equipment not containing process fluids are not subject to the provisions of this Subpart. Utilities, and other non-process lines, such as heating and cooling systems which do not combine their materials with those in the processes they serve, are not considered to be part of a process unit.

d. Refer to the applicable portions in Section B of this permit for equipment subject to the HON LDAR program of 40 CFR Part 63, Subpart H, and refer to Section C, emission unit P801 of this permit for equipment subject to the LDAR program in OAC rule 3745-21-09(T).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) [40 CFR 63, Subpart G] NESHAP FROM THE SYNTHETIC ORGANIC CHEMICL MANUFACTURING INDUSTRY FOR PROCESS VENTS, STORAGE VESSELS, TRANSFER OPERATIONS, AND WASTEWATER

The permittee shall comply with the applicable monitoring and recordkeeping requirements under this Subpart, including the following sections:

63.126(c)	*Transfer operation provisions – reference control technology*: For each Group 2 transfer rack, the permittee shall maintain records as required in 63.130(f). No other provisions for transfer racks apply to the Group 2 transfer rack.
63.130(f)	*Transfer operation provisions – periodic recordkeeping:* Record, update annually, and maintain the information specified in 40 CFR Part 63.130 (f)(1) through (f)(3) in a readily accessible location on site.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

49. Emissions Unit Group - J2-LR, 21-09(T): J003, J004,

EU ID	Operations, Property and/or Equipment Description
J003	Heavy oil railcar loading rack (formerly Z005)
J004	Heavy oil truck loading rack (formerly Z006)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	40 CFR Part 63, Subpart A	exempt, see b)(2)a.
Equipment Leaks		
b.	40 CFR Part 63, Subpart CC	exempt, see b)(2)a.
c.	OAC rule 3745-21-09(T)	See b)(2)b.

(2) Additional Terms and Conditions

a. This unit is exempt from 40 CFR Part 63, Subparts A and CC because it does not load organic hazardous air pollutants (HAPS) as defined by 40 CFR 63.641.

b. The leak detection and repair requirements of OAC rule 3745-21-09(T) applicable to this emissions unit are subsumed into the facility-wide leak detection and repair requirements of emissions unit P801.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

50. Emissions Unit Group - P1 Cooling Towers: P042, P043, P044, P045, P046,

EU ID	Operations, Property and/or Equipment Description
P042	Plant 2/3 Cooling Tower (CT-301) is a 16,500 gallon per minute non-contact cooling tower
P043	Plant 4 Cooling Tower (CT-401) is a 13,332 gallon per minute non-contact cooling tower
P044	Plant 5 Cooling Tower (CT-501) is a 15,000 gallon per minute non-contact cooling tower
P045	Plant 6/8 Cooling Tower (CT-601) is a 10,000 gallon per minute non-contact cooling tower
P046	Plant 9 Cooling Tower (CT-9001) is a 26,000 gallon per minute non-contact cooling tower

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
b.	OAC rule 3745-17-11(B)	For emissions unit (EU) P042: 97.4 lbs/hr of particulate emissions(PE); For emissions unit (EU) P043: 94.2 lbs/hr of particulate emissions(PE); For emissions unit (EU) P044: 96.0 lbs/hr of particulate emissions(PE); For emissions unit (EU) P045: 90.1 lbs/hr of particulate emissions(PE); For emissions unit (EU) P046: 104.5 lbs/hr of particulate emissions(PE); See b)(2)a.
c.	40 CFR Part 63, Subpart CC	In accordance with 63.640(h), the permittee of heat exchange systems

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	(40 CFR 63.640-656) [In accordance with 40 CFR 63.640(a) and 63.640(c)(8), this emissions unit is subject to Subpart CC as a petroleum refining process unit located at a plant site that is a major source as defined in section 112(a) of the Clean Air Act; and has equipment that meets the definition of a heat exchange system as defined in 63.641.]	subject to 40 CFR Part 63, Subpart CC, shall be in compliance with the existing source standards in 63.654 no later than October 29, 2012. See b)(2)b.
d.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	See b)(2)c.

(2) Additional Terms and Conditions

a. The total dissolved solids (TDS) present in cooling water drift is directly responsible for the formation of particulate emissions when the drift is discharged from a cooling tower. The process weight rate (PWR) used to determine the allowable particulate mass emission rate is the total tons of circulating cooling water. Based on the cooling water maximum process flow rate (gallons per minute), a PWR in tons per hour was calculated. Using Table 1 in OAC rule 3745-17-11(B), the allowable particulate mass emission rate was determined:

Emission Unit	Max. Process Flow Rate (gallons/minute)	PWR (tons/hr)	Mass Emis. Rate (lb/hr)
P042	16,500	4,128	97.4
P043	13,332	3,336	94.2
P044	15,000	3,753	96.0
P045	10,000	2,502	90.1
P046	26,000	6,505	104.5

b. The permittee of a heat exchanger system that meets the criteria of 40 CFR 63.640(c)(8) must comply with the requirements of paragraphs (c) through (g) of section 63.654.

c. Table 6 of 40 CFR 63, Subpart CC specifies the provisions of Subpart A that apply and those that do not apply to owners and operators of sources subject to 40 CFR 63, Subpart CC.

c) Operational Restrictions

None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall test and record the TDS concentration, in mg/l, of the cooling water at least once per quarter as long as the reading is less than 10,000 mg/l. If a reading shows greater than 10,000 mg/l, then monitoring shall be increased to at least every week until 8 consecutive weeks show a TDS concentration below this level. The TDS concentration shall be measured using one of the following methods: 1) a conductivity meter, 2) Method 2540 C, "Total Dissolved Solids Dried at 180 Degrees C" from the most recent edition of "Standard Methods for the Examination of Water and Wastewater", or 3) other equivalent method approved by USEPA or Toledo Environmental Services.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) Quarterly, the permittee shall calculate and record the particulate emissions, in pounds per hour, using the equations specified in f)(1)b. through f)(1)f. of this permit for any TDS reading during that quarter which exceeds the limit stated in the table (mg/l) (if any). (TDS concentrations below the maximum TDS level stated below (mg/)l would not cause an exceedance of the allowable lb/hr limit.)

Emission Unit	Max. TDS Level (mg/l)
P042	58,972
P043	70,600
P044	63,915
P045	89,949
P046	40,133

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES

The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, Subpart CC, including the following sections, briefly summarized:

63.654 Heat Exchange Systems	
63.654(c)	Perform monthly monitoring to identify leaks of total strippable VOC using the procedures in 63.654(c)(1) and (c)(2).
63.654(d)	If leaks are detected, repair the leak as soon as practicable but no later than 45 days. Actions for repair are cited in 63.654(d)(1) through (d)(5).
63.654(e)	Optional additional monitoring requirements on cooling tower return lines when a leak is detected. See 63.654(c)(1).
63.654(f)	Delay of Repair requirements
63.654(g)	Recordkeeping requirements for equipment with leaks on Delay of Repair
63.655(i)	*Recordkeeping Requirements*: If subject to the monitoring requirements in 63.654 (above), then comply with the recordkeeping requirements in 63.655(i)(4)(i) through (vi).

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit quarterly deviation reports that identify all exceedances of the allowable particulate emission limitation stated above in pounds per hour.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES

The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 63, Subpart CC, including the following sections briefly summarized:

63.655(e)	Submit a Notification of Compliance Status report as described in 63.655(f) and periodic reports as required by 40 CFR 63.655(g)(9).
63.655(f) and (f)(1)(vi)	Info for the Notification of Compliance Status report that identifies those heat exchangers subject to this subpart.

63.655(g)(9)	Periodic Reports for heat exchange systems reporting the number in HAP service; number found leaking; a summary of the monitoring data of leaks; dates of attempted repairs; delayed repairs and VOC emissions.

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation *for all cooling towers*:

Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance with the visible emissions limitation above shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

b. Emission Limitation *for P042*:

97.4 lbs/hr of PE

Applicable Compliance Method:

The particulate emissions shall be calculated as follows: [(16,500 gallons/minute) x (mg/liter TDS) x (0.0002) x (60 min/hr) x (3.785 liters/gallon)] ÷ (453,592 mg/lb) = particulate emissions, in lbs/hr

where:

16,500 gallons/minute = the maximum water flow rate;

mg/liter = the measured TDS level;

0.0002 = the maximum drift loss factor (based on AP42 1/95 edition);

60 min/hr = conversion factor for minutes to hours;

3.785 liters/gallon = conversion factor for liters to gallons; and

453,592 mg/lb = conversion factor for milligrams to pounds.

c. Emission Limitation *for P043*:

94.2 lbs/hr of PE

Applicable Compliance Method:

The particulate emissions shall be calculated as follows: [(13,332 gallons/minute) x (mg/liter TDS) x (0.0002) x (60 min/hr) x (3.785 liters/gallon)] ÷ (453,592 mg/lb) = particulate emissions, in lbs/hr

where:

13,332 gallons/minute = the maximum water flow rate;

mg/liter = the measured TDS level;

0.0002 = the maximum drift loss factor (based on AP42 1/95 edition);

60 min/hr = conversion factor for minutes to hours;

3.785 liters/gallon = conversion factor for liters to gallons; and

453,592 mg/lb = conversion factor for milligrams to pounds.

d. Emission Limitation *for P044*:

96.0 lbs/hr of PE

Applicable Compliance Method:

The particulate emissions shall be calculated as follows: [(15,000 gallons/minute) x (mg/liter TDS) x (0.0002) x (60 min/hr) x (3.785 liters/gallon)] ÷ (453,592 mg/lb) = particulate emissions, in lbs/hr

where:

15,000 gallons/minute = the maximum water flow rate;

mg/liter = the measured TDS level;

0.0002 = the maximum drift loss factor (based on AP42 1/95 edition);

60 min/hr = conversion factor for minutes to hours;

3.785 liters/gallon = conversion factor for liters to gallons; and

453,592 mg/lb = conversion factor for milligrams to pounds.

e. Emission Limitation *for P045*:

90.1 lbs/hr of PE

Applicable Compliance Method:

The particulate emissions shall be calculated as follows: [(10,000 gallons/minute) x (mg/liter TDS) x (0.0002) x (60 min/hr) x (3.785 liters/gallon)] ÷ (453,592 mg/lb) = particulate emissions, in lbs/hr

where:

10,000 gallons/minute = the maximum water flow rate;

mg/liter = the measured TDS level;

0.0002 = the maximum drift loss factor (based on AP42 1/95 edition);

60 min/hr = conversion factor for minutes to hours;

3.785 liters/gallon = conversion factor for liters to gallons; and

453,592 mg/lb = conversion factor for milligrams to pounds.

f. Emission Limitation *for P046*:

104.5 lbs/hr of PE

Applicable Compliance Method:

The particulate emissions shall be calculated as follows: [(26,000 gallons/minute) x (mg/liter TDS) x (0.0002) x (60 min/hr) x (3.785 liters/gallon)] ÷ (453,592 mg/lb) = particulate emissions, in lbs/hr

where:

26,000 gallons/minute = the maximum water flow rate;

mg/liter = the measured TDS level;

0.0002 = the maximum drift loss factor (based on AP42 1/95 edition);

60 min/hr = conversion factor for minutes to hours;

3.785 liters/gallon = conversion factor for liters to gallons; and

453,592 mg/lb = conversion factor for milligrams to pounds.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

51. Emissions Unit Group - T01-Grp1, EFR->IFR,spCC,21-09(L): T001, T004, T010, T060, T061, T062,

EU ID	Operations, Property and/or Equipment Description
T001	54,310 bbl internal floating roof storage tank [Tank 156] (EFR to IFR conversion), Group 1 storage vessel, primary seal - mechanical seal
T004	10,598 bbl internal floating roof storage tank [Tank 502] (EFR to IFR conversion), Group 1 storage vessel, primary seal - mechanical seal
T010	81,033 bbl internal floating roof storage tank [Tank 163] (EFR to IFR conversion), Group 1 storage vessel, primary seal - mechanical seal
T060	10,598 bbl internal floating roof storage tank [Tank 501] (EFR to IFR conversion), Group 1 storage vessel, primary seal - mechanical seal
T061	139,194 bbl internal floating roof storage tank [Tank 423] (EFR to IFR conversion), Group 1 storage vessel, primary seal - liquid mounted
T062	139,194 bbl internal floating roof storage tank [Tank 422] (EFR to IFR conversion), Group 1 storage vessel, primary seal - mechanical seal

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-21-09(L)	See b)(2)a.
b.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	Table 6 of 40 CFR Part 63, Subpart CC "General Provisions Applicability to Subpart CC" provides applicability provisions, definitions, and other general provisions of 40 CFR Part 63, Subpart A that are applicable to this emissions unit.
c.	40 CFR Part 63, Subpart CC (40 CFR 63.640-656)	In accordance with 63.646(a) the permittee of a Group 1 storage vessel subject to 40 CFR Part 63, Subpart CC

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	[In accordance with 40 CFR 63.640(a), 63.640(c)(2) and 63.641, this emissions unit is subject to Subpart CC as a Group 1 storage vessel; it is associated with petroleum refining process units located at a plant site and that is a major source as defined in section 112(a) of the Clean Air Act; and meets the definition of a Group 1 storage vessel as defined in 63.641.]	shall comply with the requirements of 63.119 through 63.121 of 40 CFR 63, Subpart G, except as provided in 63.646(b) through 63.646(l). See b)(2)b. through b)(2)d.

(2) Additional Terms and Conditions

a. No fixed roof tank can store a petroleum liquid with a true vapor pressure greater than 1.52 psi unless it is equipped with an internal floating roof.

b. MACT status (Group 1 or Group 2) is determined by the type of material being stored in the tank as defined by 40 CFR 63.641. If an existing tank changes from a Group 1 to Group 2 storage vessel where the material stored is less than 1.51 psia (maximum true vapor pressure) or 4% by weight of HAPS, then the tank is only subject to the recordkeeping requirements of 40 CFR 63.123(a) of Subpart G and 63.655(i)(1)(iv) of Subpart CC and is not required to comply with any other provisions in 40 CFR 63.119 through 63.123 of Subpart G.

c. In accordance with 63.119(a)(1), the permittee shall reduce the emissions of HAPs to the atmosphere by operating and maintaining an external floating roof converted to an internal floating roof (i.e., fixed roof installed above external floating roof) in compliance with the applicable requirements of 63.119(b).

d. [63.646(g)]
Failure to perform inspections and monitoring required by 40 CFR Part 63.646, Subpart CC shall constitute a violation of the applicable standard of this Subpart.

c) Operational Restrictions

(1) The permittee shall install the following equipment and shall maintain tank vents, seals, and or covers as follows:

a. The fixed roof storage tank shall be equipped with an internal floating roof.

b. The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports.

c. The rim vents, if present, shall be set to open or at the manufacturer's recommended setting when the roof is being floated off the roof leg supports.

d. All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-21-09(L)(1)]

(2) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES – STORAGE VESSEL PROVISIONS
The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart CC, including the following sections:

63.646(f)(1)	If a cover or lid is installed on an opening on a floating roof, the cover or lid shall remain closed except when the cover or lid must be open for access.
63.646(f)(2)	Rim space vents are to be set to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.
63.646(f)(3)	Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(3) [40 CFR63, Subpart G] STORAGE VESSEL PROVISIONS
The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart G, including the following sections:

63.119(d)	For an external floating roof converted to an internal floating roof (i.e., fixed roof installed above external floating roof), comply with the requirements for internal floating roof vessels specified in 40 CFR Part 63.119(b)(1), (2) and (3).
63.119(b)	The operator who elects to use a fixed roof and an internal floating roof shall comply with 63.119(b)(1) through (b)(6). Note: The intent of 40 CFR Part 63.119(b)(1) and (b)(2) of Subpart G is to avoid having a vapor space between the floating roof and the stored liquid for extended periods. Storage vessels may be emptied for purposes such as routine storage vessel maintenance, inspections, petroleum liquid deliveries, or transfer operations. Storage vessels where liquid is left on walls, as bottom clingage, or in pools due to floor irregularity are considered completely empty
63.119(b)(1)	The internal floating roof shall be floating on the liquid surface at all times except during the periods listed in 63.119(b)(1)(i) through (iii).

63.119(b)(2)	When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical.
63.119(b)(3)	Each internal floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device shall consist of one of the following devices: a liquid-mounted seal; a metallic shoe seal or two seals mounted one above the other. The lower seal may be vapor-mounted, but both must be continuous seals.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain records of the following information:

a. The types of petroleum liquids stored in the tank.

b. The maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(L)(3)]

(2) Compliance with the tank repair requirements in 40 CFR Part 63, Subpart CC has been determined to be as stringent or more stringent as the tank repair requirements of OAC rule 3745-21-09(L).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall maintain a record of any period of time in which the automatic bleeder vents, rim vents, and all openings other than stub drains were not maintained as required in this permit and per the rules.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-21-09(L)(1)(b) and (c) and (L)(4)]

(4) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES
The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, subpart CC, including the following sections:

63.642(e)	Requirements for keeping all applicable reports and records required by this subpart for at least 5 years except as otherwise specified in this permit and be readily accessed within 24 hours.
63.646(b), (b)(1) and (b)(2)	*Storage Vessel Provisions:* All terms not defined in 63.641 shall have the meaning given them in 40 CFR Part 63, Subparts A or G. The Group 1 storage vessel definition

	presented in 40 CFR Part 63.641 applies in lieu of the Group 1 storage vessel definitions presented in tables 5 and 6 of 40 CFR Part 63.119 of Subpart G. Use good engineering judgment or test results to determine the stored liquid weight percent total organic HAP. Method 18 of 40 CFR Part 60, Appendix A shall be used to determine the average weight percent of organic HAP in the liquid of the permittee and Administrator do not agree.
63.646(e)	When complying with the inspection requirements of 40 CFR Part 63.120 of Subpart G, existing storage vessels are not required to comply with the provisions for gaskets, slotted membranes, and sleeve seals.
63.655(i)	*Recordkeeping Requirements*: Keep the storage vessel records specified in 63.123 of Subpart G except as specified in 63.655(i)(i) through (iv).
63.655(i)(1)(i)	Records related to gaskets, slotted membranes, and sleeve seals are not required for storage vessels within existing sources.
63.655(i)(1)(iv)	If a storage vessel is determined to be Group 2 storage vessel, a record of any data, assumptions, and procedures used to make this determination shall be retained.

(5) [40 CFR 63, Subpart G] NESHAP FROM THE SYNTHETIC ORGANIC CHEMICAL MANUFACTURING INDUSTRY
The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, subpart G, including the following sections:

63.120(a) and (c)	*Storage Vessel Provisions:* To demonstrate compliance with 63.119(d) and the applicable provisions of 63.119(b), comply with the requirements of 63.120(a)(1) through (a)(7).
63.123(a)	*Recordkeeping*: Keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 status and is in operation
63.123(e)	Keep records of each inspection required by 40 CFR 63.120(a).

63.123(g)	If an extension is requested for emptying a storage vessel per 40 CFR Part 63.120(a)(4), then keep in a readily accessible location, the documentation specified in 40 CFR Part 63.120(a)(4) as applicable.

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the occurrence, of any period of time in which the automatic bleeder vents, rim vents, and all openings other than stub drains were not maintained as required in this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(L)(4)]

(3) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES
The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 63, Subpart CC, including the following sections:

63.646(l)	*Storage Vessel Provisions – Notification Requirements:* TES can waive the notification requirements of 40 CFR Part 63.120(a)(5), 63.120(a)(6), 63.120(b)(10)(ii), and 63.120(b)(10)(iii) for all or some storage vessels at petroleum refineries subject to this subpart. TES grants permission to Toledo Refining Co. to refill storage vessels seven days after submitting the notifications in 40 CFR Part 63.120(a)(6) or 63.120(b)(10)(iii) for all storage vessels at a refinery.
63.655 - Reporting Requirements:	
63.655(g); (g)(1) and (g)(2)	Semiannual reporting requirements for storage vessels in regards to inspections,
63.655(h)(2)	Reports submitted for notifications of inspections as specified in 40 CFR Part 63.655(h)(2)(i)

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

52. Emissions Unit Group - T02-Grp1, IFR, spCC,21-09(L): T013, T053, T058, T070, T072, T090, T092, T093, T110,

EU ID	Operations, Property and/or Equipment Description
T013	150,000 bbl internal floating roof storage tank [Tank 410]; Group 1 storage vessel, single seal; primary seal - mechanical shoe
T053	54,310 bbl internal floating roof storage tank [Tank 155]; Group 1 storage vessel, single seal; primary seal - mechanical shoe
T058	23,902 bbl internal floating roof storage tank [Tank 139]; Group 1 storage vessel, single seal; primary seal - mechanical shoe
T070	150,000 bbl internal floating roof storage tank [Tank 409]; Group 1 storage vessel, single seal; primary seal - mechanical shoe
T072	115,500 bbl internal floating roof storage tank [Tank 412]; Group 1 storage vessel, single seal; primary seal - liquid mounted, resilient foam filled
T090	20,050 bbl internal floating roof storage tank [Tank 142]; Group 1 storage vessel, single seal; primary seal - mechanical shoe
T092	54,419 bbl internal floating roof storage tank [Tank 151]; Group 1 storage vessel, single seal; primary seal - liquid mounted, resilient foam filled
T093	54,419 bbl internal floating roof storage tank [Tank 152]; Group 1 storage vessel, single seal; primary seal - liquid mounted, resilient foam filled
T110	150,000 bbl internal floating roof storage tank [Tank 408]; Group 1 storage vessel, single seal; primary seal - mechanical shoe

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-21-09(L)	See b)(2)a.
b.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	Table 6 of 40 CFR Part 63, Subpart CC "General Provisions Applicability to Subpart CC" provides applicability provisions, definitions, and other general provisions of 40 CFR Part 63, Subpart A that are applicable to this emissions unit.
c.	40 CFR Part 63, Subpart CC (40 CFR 63.640-656) [In accordance with 40 CFR 63.640(a), 63.640(c)(2) and 63.641, this emissions unit is subject to Subpart CC as a Group 1 storage vessel; it is associated with petroleum refining process units located at a plant site and that is a major source as defined in section 112(a) of the Clean Air Act; and meets the definition of a Group 1 storage vessel as defined in 63.641.]	In accordance with 63.646(a) the permittee of a Group 1 storage vessel subject to 40 CFR Part 63, Subpart CC shall comply with the requirements of 63.119 through 63.121 of 40 CFR 63, Subpart G, except as provided in 63.646(b) through 63.646(l). See b)(2)b. through b)(2)d.
d.	*Applicable to EU T110*: OAC rule 3745-31-05(A)(3) (PTI 04-024 issued 11/4/1974)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(L).

(2) Additional Terms and Conditions

a. No fixed roof tank can store a petroleum liquid with a true vapor pressure greater than1.52 psi unless it is equipped with an internal floating roof.

b. MACT status (Group 1 or Group 2) is determined by the type of material being stored in the tank as defined by 40 CFR 63.641. If an existing tank changes from a Group 1 to Group 2 storage vessel where the material stored is less than 1.51 psia (maximum true vapor pressure) or 4% by weight of HAPS, then the tank is only subject to the recordkeeping requirements of 40 CFR 63.123(a) of Subpart G and 63.655(i)(1)(iv) of Subpart CC and is not required to comply with any other provisions in 40 CFR 63.119 through 63.123 of Subpart G.

c. In accordance with 63.119(a)(1), the permittee shall reduce the emissions of HAPs to the atmosphere by operating and maintaining an internal floating roof in compliance with the applicable requirements in 63.119(b).

d. [63.646(g)]
Failure to perform inspections and monitoring required by 40 CFR Part 63.646, Subpart CC shall constitute a violation.

c) Operational Restrictions

(1) The permittee shall install the following equipment and shall maintain tank vents, seals, and or covers as follows:

a. The fixed roof storage tank shall be equipped with an internal floating roof.

b. The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports.

c. The rim vents, if present, shall be set to open or at the manufacturer's recommended setting when the roof is being floated off the roof leg supports.

d. All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-21-09(L)(1)]

(2) 40 CFR 63, Subpart CC – NESHAP FROM PETROLEUM REFINERIES - STORAGE VESSEL PROVISIONS
The permittee shall comply with the applicable operational restrictions required under 40 CFR Part 63, Subpart CC, including the following sections:

63.646(f)(1)	If a cover or lid is installed on an opening on a floating roof, the cover or lid shall remain closed except when the cover or lid must be open for access.
63.646(f)(2)	Rim space vents are to be set to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.
63.646(f)(3)	Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(3) [40 CFR 63, Subpart G] STORAGE VESSEL PROVISIONS [63.119(b)]
The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart G, including the following sections:

63.119(b)	For a fixed roof and an internal floating roof, comply with the requirements specified in 63.119(b)(1) and (b)(4), as provided in 63.646(c) of subpart CC. *Note*: The intent of 40 CFR Part 63.119(b)(1) and (b)(2) of Subpart G is to avoid having a vapor space between the floating roof and the stored liquid for extended periods. Storage vessels may be emptied for purposes such as routine storage vessel maintenance, inspections, petroleum liquid deliveries, or transfer operations. Storage vessels where liquid is left on walls, as bottom clingage, or in pools due to floor irregularity are considered completely empty.
63.119(b)(1)	The internal floating roof shall be floating on the liquid surface at all times except during the periods listed in 63.119(b)(1)(i) through (iii).
63.119(b)(2)	When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical.
63.119(b)(3)	Each internal floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device shall consist of one of the following devices: a liquid-mounted seal; a metallic shoe seal or two seals mounted one above the other. The lower seal may be vapor-mounted, but both must be continuous seals.
63.119(b)(4)	Automatic bleeder vents are to be closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the roof leg supports.

d) Monitoring and/or Recordkeeping Requirements

(1) [OAC rule 3745-21-09(L)]
The permittee shall maintain records of the following information:

a. the types of petroleum liquids stored in the tank; and

b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) Compliance with the tank repair requirements in 40 CFR Part 63, Subpart CC has been determined to be as stringent or more stringent as the tank repair requirements of OAC rule 3745-21-09(L).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall maintain a record of any period of time in which the automatic bleeder vents, rim vents, and all openings other than stub drains were not maintained as required in this permit and per the rules.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-21-09(L)(1)(b) and (c) and (L)(4)]

(4) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES
The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, subpart CC, including the following sections:

63.642(e)	Requirements for keeping all applicable reports and records required by this subpart for at least 5 years except as otherwise specified in this permit and be readily accessed within 24 hours.
63.646(b), (b)(1) and (b)(2)	*Storage Vessel Provisions:* All terms not defined in 63.641 shall have the meaning given them in 40 CFR Part 63, Subparts A or G. The Group 1 storage vessel definition presented in 40 CFR Part 63.641 apply in lieu of the Group 1 storage vessel definitions presented in tables 5 and 6 of 40 CFR Part 63.119 of Subpart G. Use good engineering judgment or test results to determine the stored liquid weight percent total organic HAP. Method 18 of 40 CFR Part 60, Appendix A shall be used to determine the average weight percent of organic HAP in the liquid if the permittee and Administrator do not agree.
63.646(e)	When complying with the inspection requirements of 40 CFR Part 63.120 of Subpart G, existing storage vessels are not required to comply with the provisions for gaskets, slotted membranes, and sleeve seals.
63.655(i)	*Recordkeeping Requirements*: Keep the storage vessel records specified in 63.123 of Subpart G except as specified in 63.655(i)(i) through (iv).
63.655(i)(1)(i)	Records related to gaskets, slotted membranes, and sleeve seals are not required for storage vessels within existing sources.

63.655(i)(1)(iv)	If a storage vessel is determined to be Group 2 storage vessel, a record of any data, assumptions, and procedures used to make this determination shall be retained.

(5) [40 CFR 63, Subpart G] NESHAP FROM THE SYNTHETIC ORGANIC CHEMICAL MANUFACTURING INDUSTRY
The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, subpart G, including the following sections:

63.120(a)	*Storage Vessel Provisions:* To demonstrate compliance with 63.119(b) or 63.119(d), comply with the requirements of 63.120(a)(1) through (a)(7).
63.123(a)	*Recordkeeping*: Keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 status and is in operation
63.123(c)	Keep records of each inspection required by 40 CFR 63.120(a).
63.123(g)	If an extension is requested for emptying a storage vessel per 40 CFR Part 63.120(a)(4), then keep in a readily accessible location, the documentation specified in 40 CFR Part 63.120(a)(4) as applicable.

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the occurrence, of any period of time in which the automatic bleeder vents, rim vents, and all openings other than stub drains were not maintained as required in this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(L)(4)]

(3) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES
The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 63, Subpart CC, including the following sections:

63.646(l)	*Storage Vessel Provisions – Notification Requirements:* TES can waive the notification requirements of 40 CFR Part 63.120(a)(5), 63.120(a)(6), 63.120(b)(10)(ii), and 63.120(b)(10)(iii) for all or some storage vessels at petroleum refineries subject to this subpart. TES grants permission to Toledo Refining Co. to refill storage vessels seven days after submitting the notifications in 40 CFR Part 63.120(a)(6) or 63.120(b)(10)(iii) for all storage vessels at a refinery.
63.655 – Reporting Requirements	
63.655(g); (g)(1) and (g)(2)	Semiannual reporting requirements for storage vessels in regards to inspections.
63.655(h)(2)	*Storage Vessel Provisions – Notification Requirements:* Reports submitted for notifications of inspections as specified in 40 CFR Part 63.655(h)(2)(i)

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

53. Emissions Unit Group - T03-Grp1, EFR, spCC, 21-09(Z): T006, T007, T008, T009, T015, T029, T037, T038, T039, T040, T041, T044, T047, T054, T059, T063, T065, T066, T067, T068, T069,

EU ID	Operations, Property and/or Equipment Description
T006	115,694 bbl external floating roof storage tank [Tank 413]; Group 1 storage vessel with dual seals
T007	115,857 bbl external floating roof storage tank [Tank 405]; Group 1 storage vessel with dual seals; primary seal - mechanical shoe; secondary seal - rim mounted flexible wiper
T008	81,046 bbl external floating roof storage tank [Tank 166]; Group 1 storage vessel with dual seals; primary seal - mechanical shoe; secondary seal - rim mounted flexible wiper
T009	81,046 bbl external floating roof storage tank [Tank 165]; Group 1 storage vessel with dual seals; primary seal - mechanical shoe; secondary seal - rim mounted flexible wiper
T015	147,000 bbl external floating roof storage tank [Tank 436]; Group 1 storage vessel with dual seals; primary seal - mechanical shoe; secondary seal - rim mounted flexible wiper
T029	23,902 bbl external floating roof storage tank [Tank 140]; Group 1 storage vessel with dual seals; primary seal - mechanical shoe; secondary seal - rim mounted flexible wiper
T037	138,682 bbl external floating roof storage tank [Tank 426]; Group 1 storage vessel; dual seals, primary seal - mechanical shoe seal; secondary seal - rim-mounted, flexible wiper
T038	138,920 bbl external floating roof storage tank [Tank 427]; Group 1 storage vessel with dual seals; primary seal - mechanical shoe; secondary seal - rim mounted flexible wiper
T039	138,852 bbl external floating roof storage tank [Tank 424]; Group 1 storage vessel with dual seals; primary seal - mechanical shoe; secondary seal - rim mounted flexible wiper
T040	139,194 bbl external floating roof storage tank [Tank 435]; Group 1 storage vessel with dual seals; primary seal - mechanical shoe; secondary seal - rim mounted flexible wiper
T041	139,194 bbl external floating roof storage tank [Tank 434]; Group 1 storage vessel with dual seals; primary seal - mechanical shoe; secondary seal - rim mounted flexible wiper
T044	20,050 bbl external floating roof storage tank [Tank 131]; Group 1 storage vessel with dual seals; primary seal - mechanical shoe; secondary seal - rim mounted flexible wiper
T047	138,682 bbl external floating roof storage tank [Tank 425]; Group 1 storage vessel; dual seals, primary seal - mechanical shoe; secondary seal - rim-mounted, flexible wiper
T054	12,897 bbl external floating roof storage tank [Tank 130]; Group 1 storage vessel with dual seals
T059	25,049 bbl external floating roof storage tank [Tank 191]; Group 1 storage vessel with dual seals; primary seal - mechanical shoe; secondary seal - rim mounted flexible wiper

EU ID	Operations, Property and/or Equipment Description
T063	139,875 bbl external floating roof storage tank [Tank 421]; Group 1 storage vessel with dual seals; primary seal - mechanical shoe; secondary seal - rim mounted flexible wiper
T065	139,181 bbl external floating roof storage tank [Tank 419]; Group 1 storage vessel with dual seals; primary seal - mechanical shoe; secondary seal - rim mounted flexible wiper
T066	139,198 bbl external floating roof storage tank [Tank 418]; Group 1 storage vessel with dual seals; primary seal - mechanical shoe; secondary seal - rim mounted flexible wiper
T067	120,010 bbl external floating roof storage tank [Tank 417]; Group 1 storage vessel with dual seals; primary seal - mechanical shoe; secondary seal - rim mounted flexible wiper
T068	119,793 bbl external floating roof storage tank [Tank 416]; Group 1 storage vessel with dual seals; primary seal - mechanical shoe; secondary seal - rim mounted flexible wiper
T069	120,000 bbl external floating roof storage tank [Tank 415]; Group 1 storage vessel with dual seals; primary seal - mechanical shoe; secondary seal - rim mounted flexible wiper

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-21-09(Z)	See b)(2)a. and b)(2)b.
b.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	Table 6 of 40 CFR Part 63, Subpart CC "General Provisions Applicability to Subpart CC" provides applicability provisions, definitions, and other general provisions of 40 CFR Part 63, Subpart A that are applicable to this emissions unit.
c.	40 CFR Part 63, Subpart CC (40 CFR 63.640-656) [In accordance with 40 CFR	In accordance with 63.646(a) the permittee of a Group 1 storage vessel subject to 40 CFR Part 63, Subpart CC shall comply with the requirements of 63.119 through 63.121 of 40 CFR 63,

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	63.640(a), 63.640(c)(2) and 63.641, this emissions unit is subject to Subpart CC as a Group 1 storage vessel; it is associated with petroleum refining process units located at a plant site and that is a major source as defined in section 112(a) of the Clean Air Act; and meets the definition of a Group 1 storage vessel as defined in 63.641.]	Subpart G, except as provided in 63.646(b) through 63.646(l). See b)(2)c. through b)(2)e.
d.	*Applicable to T015 only*: OAC rule 3745-31-05(A)(3) (PTI 04-680, modified on 7/16/97)	2.28 tpy of volatile organic compounds (VOC)

(2) Additional Terms and Conditions

a. Per OAC 3745-21-09(Z)(3)(c), no tank can store a petroleum liquid with a maximum true vapor pressure greater than 1.5 pounds per square inch absolute unless it is equipped with an external floating roof.

b. The welded external floating roof storage tank equipped with a mechanical shoe primary seal and rim-mounted secondary seal shall meet the following requirements.

i. There shall be no visible holes, tears or other openings in the seal or seal fabric.

ii. For the primary seal, the total seal gap area shall not exceed 10.0 square inches per foot of tank diameter.

iii. For the secondary seal, the total seal gap area shall not exceed 1.0 square inch per foot of tank diameter.

The permittee may change the seal types during the term of this permit provided that a written notification and revised “emission activity category” form, including the results of the latest seal gap measurements, are submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the change occurs.

c. In accordance with 63.119(a)(1), the permittee shall reduce the emissions of HAPs to the atmosphere by operating and maintaining an external floating roof in compliance with the applicable requirements in 63.119(c).

d. MACT status (Group 1 or Group 2) is determined by the type of material being stored in the tank as defined by 40 CFR 63.641. If an existing tank changes from a Group 1 to Group 2 storage vessel where the material stored is less than 1.51 psia (maximum true vapor pressure) or 4% by weight of HAPS, then the tank is only subject to the recordkeeping requirements of 40 CFR 63.123(a) of Subpart G and 63.655(i)(1)(iv) of Subpart CC and is not required to comply with any other provisions in 40 CFR 63.119 through 63.123 of Subpart G.

e. [63.646(g)]
Failure to perform inspections and monitoring required by 40 CFR Part 63.646, Subpart CC shall constitute a violation of the applicable standard of this Subpart.

c) Operational Restrictions

(1) The external floating roof tank shall be maintained using the following control measures:

a. Any opening in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, stub drains, and slotted gauging/sampling wells shall be equipped with:

i. a cover, seal, or lid which remains in the closed position at all times without any visible gaps, except when the opening is in actual use; and

ii. a projection into the tank below the liquid surface.

b. Any automatic bleeder vent shall remain in the closed position, except when the external floating roof is floated off or landed on the roof leg supports.

c. Any rim vent shall be set to open at the manufacturer=s recommended setting, except when the external floating roof is being floated off the roof leg supports.

d. Any emergency roof drain shall be equipped with a slotted membrane fabric cover or other device which covers at least 90 percent of the area of the opening.

e. Any stub drain shall be equipped with a projection into the tank below the liquid surface.

f. Any slotted gauging/sampling well shall be equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-21-09(Z)(1)(c)]

(2) [40 CFR 63, Subpart CC] – NESHAP FROM PETROLEUM REFINERIES - STORAGE VESSEL PROVISIONS
The permittee shall comply with the applicable operational restrictions required under 40 CFR Part 63, Subpart CC, including the following sections:

63.646(f)(1)	If a cover or lid is installed on an opening on a floating roof, the cover or lid shall remain closed except when the cover or lid must be open for access.
63.646(f)(2)	Rim space vents are to be set to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.
63.646(f)(3)	Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(3) [40 CFR 63, Subpart G] STORAGE VESSEL PROVISIONS

The permittee shall comply with the applicable operational restrictions required under 40 CFR Part 63, Subpart G, including the following sections:

63.119 Storage Vessel Provisions – Reference Control Technology	
63.119(c)	The permittee who uses an external floating roof shall comply with the requirements specified in 63.119(c)(1), (c)(3) and (c)(4) as provided in 63.646(c) of Subpart CC.
63.119(c)(1)	Each external floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device is to consist of two seals, the upper seal (secondary seal) is above the lower seal (primary seal). The primary seal shall be either a metallic shoe seal or a liquid-mounted seal. Both seals shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion. See 63.119(c)(1)(i) through (c)(1)(iii) for exceptions.
63.119(c)(3)	The external floating roof shall be floating on the liquid surface at all times except when the floating roof must be supported by the leg supports during the initial fill, after the vessel has been completely emptied and degassed; and when the vessel is completely emptied before being subsequently refilled.
63.119(c)(4)	When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical
63.120 Storage Vessels, Procedures to Determine Compliance	
63.120(b)(5)	PRIMARY SEAL – additional requirements: Where a metallic shoe seal is in use, one end of the metallic shoe shall extend into the stored liquid and the other end shall

	extend a minimum vertical distance of 61 centimeters above the stored liquid surface. There shall be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope
63.120(b)(6)	SECONDARY SEAL – additional requirements: The secondary seal shall be installed above the primary seal so that it completely covers the space between the roof edge and the vessel wall except as provided in 40 CFR Part 63.160(b)(4). There shall be no holes, tears, or other openings in the seal or seal fabric.

d) Monitoring and/or Recordkeeping Requirements

(1) The seals of the external floating roof tank shall be inspected as follows:

a. The seal and seal fabric shall be inspected annually for visible holes, tears, or other openings.

b. The secondary seal gap shall be measured annually, in accordance with the method specified in paragraph (I) of OAC rule 3745-21-10.

c. The primary seal gap shall be measured at least once every 5 years, in accordance with the method specified in paragraph (I) of OAC rule 3745-21-10.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(Z)(2)(a), (b), and (c)]

(2) The seal gaps shall be measured to determine the width and area of the gaps between the wall of the external floating roof tank and the seal around the circumference of the roof. The width of the seal gap shall be determined using probes of the appropriate width, to accurately measure the actual distance from the seal to the tank wall. The area of the seal gap shall be determined by multiplying the width of the seal gap by the circumferential length of the gap. The total seal gap area is the accumulated area of all gaps which are greater than 0.125 inch in width.

[OAC rule 3745-21-10(I)] [OAC rule 3745-21-09(Z)(2)(c)]

(3) The permittee shall maintain records of the following information for at least two years:

a. the dates and results of each seal and seal fabric inspection and each seal gap measurement; and

b. the annual throughput of each petroleum liquid stored in the tank.

A copy of these records shall be made available to the Director or an authorized representative of the Director upon written or verbal request.

[Authority for term OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(Z)(2)(d) and (e)]

(4) The permittee shall maintain records of the following information for at least five years:

a. the types of petroleum liquids stored in the tank; and

b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid.

A copy of these records shall be made available to the Director or an authorized representative of the Director upon written or verbal request.

[Authority for term: OAC rule 37-77-07(C)(1) and OAC rule 3745-21-09(Z)(4)]

(5) Compliance with the tank repair requirements in 40 CFR Part 63, Subpart CC has been determined to be as stringent or more stringent as the tank repair requirements of OAC rule 3745-21-09(Z).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES

The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, Subpart CC, including the following sections:

63.642(e)	Requirements for keeping all applicable reports and records required by this subpart for at least 5 years except as otherwise specified in this permit and be readily accessed within 24 hours.
63.646 – Storage Vessel Provisions	
63.646(b), (b)(1) and (b)(2)	*Storage Vessel Provisions:* All terms not defined in 63.641 shall have the meaning given them in 40 CFR Part 63, Subparts A or G. The Group 1 storage vessel definition presented in 40 CFR Part 63.641 applies in lieu of the Group 1 storage vessel definitions presented in tables 5 and 6 of 40 CFR Part 63.119 of Subpart G. Use good engineering judgment or test results to determine the stored liquid weight percent total organic HAP. Method 18 of 40 CFR Part 60, Appendix A shall be used to determine the average weight percent of organic HAP in the liquid of the permittee and Administrator do not agree.

63.646(e)	When complying with the inspection requirements of 40 CFR Part 63.120 of Subpart G, storage vessels at existing sources subject to 40 CFR Part 63, Subpart CC, are not required to comply with the provisions for gaskets, slotted membranes, and sleeve seals.
63.655(i) references 63.123 of 40 CFR 63, Subpart G – Storage Vessel Recordkeeping	
63.655(i)	*Recordkeeping Requirements*: Keep the storage vessel records specified in 63.123 of Subpart G except as specified in 63.655(i)(i) through (iv).
63.655(i)(1)(i)	Records related to gaskets, slotted membranes, and sleeve seals are not required for storage vessels within existing sources.
63.655(i)(1)(iv)	If a storage vessel is determined to be Group 2 storage vessel, a record of any data, assumptions, and procedures used to make this determination shall be retained.

(7) [40 CFR 63, Subpart G] NESHAP FROM THE SYNTHETIC ORGANIC CHEMICL MANUFACTURING INDUSTRY FOR PROCESS VENTS, STORAGE VESSELS, TRANSFER OPERATIONS, AND WASTEWATER

The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, Subpart G, including the following sections:

63.120-Storage Vessel Inspections:	
63.120(b)(1)	Except as provided in 40 CFR Part 63.120(b)(7), determine the gap areas and maximum gap widths between the primary seal and the wall of the storage vessel, and the secondary seal and the wall of the storage vessel according to the frequency specified in the following paragraphs: Measurements of gaps between the vessel wall and the primary seal shall be performed during the hydrostatic testing of the vessel at least once every 5 years; Measurements of gaps between the vessel wall and the secondary seal shall be performed at least once per year; and Requirements if any storage vessel ceases to store organic HAP for a period of 1 year or more or if the maximum true vapor pressure of the total organic HAP's in the stored liquid

	falls below the values defining Group 1 storage vessels. See 63.120(b)(1)(iv)
63.120(b)(2)	Requirements for determining gap widths and gap areas in the primary and secondary seals (seal gaps) individually by the procedures described in 63.120(b)(2)(i) through (b)(2)(iii).
63.120(b)(3) and (b)(4)	Requirements for determining the accumulated area of gaps between the vessel wall and each seal. The accumulated area of gaps between the vessel wall and the primary seal shall not exceed 212 square centimeters per meter (10 square inches per foot) of vessel diameter and the width of any portion of any gap shall not exceed 3.81 centimeters (1.5 inches). The accumulated area of gaps between the vessel wall and the secondary seal shall not exceed 21.2 square centimeters per meter (1 square inch per foot) of vessel diameter and the width of any portion of any gap shall not exceed 1.27 centimeters (0.5 inch). These seal gap requirements may be exceeded during the measurement of primary seal gaps as required by 40 CFR Part 63.120(b)(1).
63.120(b)(5) and (b)(6)	Additional requirements for the primary and secondary seals.
63.120(b)(7)	Requirements if it is determined that it is unsafe to perform the seal gap measurements or to inspect the vessel because the floating roof appears to be structurally unsound and poses an imminent or potential danger to inspecting personnel.
63.120(b)(8)	Repair no later than 45 calendar days after identification, or empty and remove the storage vessel from service no later than 45 calendar days after identification of conditions that do not meet requirements listed in 40 CFR Part 63.120(b)(3), (b)(4), (b)(5) and (b)(6). If a failure is detected that cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, two extensions of up to 30 calendar days may be utilized.
63.120(b)(10)	Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed and required repairs if the roof has defects or the seals have holes, tears or other openings in the seal or seal fabric.

63.123 – Recordkeeping Requirements	
63.123(a)	Keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. Keep records as long as the storage vessel retains Group 1 status and is in operation.
63.123(d) for EFR Tanks	Keep records describing the results of each seal gap measurement made in accordance with 40 CFR Part 63.120(b). Include the date of the measurement, the raw data obtained in the measurement, and the calculations described in 40 CFR Part 63.120(b)(3) and (b)(4).
63.123(g)	Requirements for permittees who elects to utilize an extension in emptying a storage vessel in accordance with 40 CFR 63.120 (b)(7)(ii) or (b)(8). Keep the documentation readily accessible.
63.123(i)(1)(i)	Records related to gaskets, slotted membranes, and sleeve seals are not required for storage vessels within existing sources.

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of any seal and seal fabric inspection or any seal gap measurement, which documents a violation of the applicable control equipment requirements. The notification shall also describe the corrective actions which have been or will be taken to achieve compliance.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(Z)(5)]

(3) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES
The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 63, Subpart CC, including the following sections:

63.655 - Reporting Requirements	
63.655(h)(2)	*Storage Vessel Provisions – Notification Requirements:* In order to have an observer present, notify TES in writing, 30 days in advance: - of the refilling of each Group 1 storage vessel that has been emptied and degassed except as stated in 63.655(h)(2)(i)(A) through (C). - for EFR tanks, of any seal gap measurements. The state can waive this notification requirement. TES waives the notification requirement for 40 CFR 63.655(h)(2)(ii) and 63.120(b)(9). However, TES reserves the right to witness external floating roof tank seal inspections. Toledo Refining Co. will perform tank seal inspections for this tank within 30 days after receipt of written request from TES.
63.655(g)(3)	*Periodic Reporting of results of seal gap measurements for EFR tanks:* - submit documentation of the results of each seal gap measurement in accordance with 63.655(g)(3)(i). - reporting requirements if an extension is utilized per 63.655(g)(3)(ii). - submit documentation of any failures that are identified during visual inspections required by 40 CFR Part 63.120(b)(10). The documentation shall meet the specifications and requirements stated in 63.655(g)(3)(iii).

f) Testing Requirements

(1) For emission unit T015, compliance with the VOC emission limitation shall be determined using the latest version of TANKS software (TANKS 4) or equivalent, using the annual throughput and annual average vapor pressure.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

54. Emissions Unit Group - T04-Grp 1, IFR spG, 21-09(L): T098, T099,

EU ID	Operations, Property and/or Equipment Description
T098	10,084 bbl internal floating roof storage tank [Tank 138]; Group 1 storage vessel, single seal; primary seal - mechanical shoe
T099	10,084 bbl internal floating roof storage tank [Tank 137]; Group 1 storage vessel, single seal; primary seal - liquid mounted, resilient foam filled

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-21-09(L)	See b)(2)a.
b.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	In accordance with 63.103(a), Table 3 of 40 CFR Part 63, Subpart F provides applicability provisions, definitions, and other general provisions of 40 CFR Part 63, Subpart A that are applicable to this emissions unit.
c.	40 CFR Part 63, Subpart F (40 CFR 63.100-107) [In accordance with 40 CFR 63.100, this emissions unit is a chemical manufacturing process unit located at a facility meeting the criteria specified in 63.100(b).]	40 CFR Part 63, Subpart F, provides applicability provisions, definitions, and other general provisions that are applicable to 40 CFR 63, Subpart G. See b)(2)d.
d.	40 CFR Part 63, Subpart G (40 CFR 63.110-153)	In accordance with 63.119, for each Group 1 storage vessel for which the maximum true vapor pressure of the total

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	[In accordance with 40 CFR 63.110(a), Subpart G is applicable to storage vessels located at a facility subject to Subpart F. This storage vessel is subject to Subpart G as an existing Group 1 storage vessel as defined in 63.111.]	organic HAP in the liquid is <76.6 kilopascals, the permittee shall reduce hazardous air pollutants emissions to the atmosphere by operating and maintaining a fixed roof and internal floating roof. See b)(2)b. and b)(2)c.

(2) Additional Terms and Conditions

a. No fixed roof tank can store a petroleum liquid with a true vapor pressure greater than1.52 psi unless it is equipped with an internal floating roof.

b. Per 40 CFR 63, Subpart G, MACT status (Group 1 or Group 2) is determined by the type of material being stored in the tank as defined by 40 CFR 63.111. If a tank changes from a Group 1 to Group 2 storage vessel where the material stored is less than 0.75 psia (vapor pressure), then the tank is only subject to the recordkeeping requirements of 40 CFR 63.123(a) of Subpart G and is not required to comply with any other provisions in 40 CFR 63.119 through 63.123 of Subpart G.

c. [63.119(b)]
The permittee who uses a fixed roof and an internal floating roof shall comply with the requirements specified in 40 CFR Part 63.119(b)(1) through (6).

d. The permittee shall comply with all applicable portions of 40 CFR Part 63.103 of Subpart F.

c) Operational Restrictions

(1) The permittee shall install the following equipment and shall maintain tank vents, seals, and or covers as follows:

a. The fixed roof storage tank shall be equipped with an internal floating roof.

b. The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports.

c. The rim vents, if present, shall be set to open or at the manufacturer's recommended setting when the roof is being floated off the roof leg supports.

d. All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-21-09(L)(1)]

(2) [40 CFR 63, Subpart G] STORAGE VESSEL PROVISIONS [63.119(b)]
The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart G, including the following sections

63.119(b)	The operator who elects to use a fixed roof and an internal floating roof shall comply with 63.119(b)(1) through (b)(6). Note: The intent of 40 CFR Part 63.119(b)(1) and (b)(2) of Subpart G is to avoid having a vapor space between the floating roof and the stored liquid for extended periods. Storage vessels may be emptied for purposes such as routine storage vessel maintenance, inspections, petroleum liquid deliveries, or transfer operations. Storage vessels where liquid is left on walls, as bottom clingage, or in pools due to floor irregularity are considered completely empty
63.119(b)(1)	The internal floating roof shall be floating on the liquid surface at all times except during the periods listed in 63.119(b)(1)(i) through (iii).
63.119(b)(2)	When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical.
63.119(b)(3)	Each internal floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device shall consist of one of the following devices: a liquid-mounted seal; a metallic shoe seal or two seals mounted one above the other. The lower seal may be vapor-mounted, but both must be continuous seals.
63.119(b)(4)	Automatic bleeder vents are to be closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the roof leg supports.
63.119(b)(5)	Each internal floating roof shall meet the specifications listed in 40 CFR Part 63.119(b)(5)(i) through (b)(5)(vii).
63.119(b)(5)(i)	Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and rim space vents is to provide a projection below the liquid surface.
63.119(b)(5)(ii)	Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains shall be equipped with a cover or lid. The cover or lid shall be equipped with a gasket.
63.119(b)(5)(iii)	Each penetration of the internal floating roof for the purposes of sampling shall be a sample well. Each sample well shall

	have a slit fabric cover that covers at least 90 percent of the opening.
63.119(b)(5)(iv)	Each automatic bleeder vent shall be gasketed.
63.119(b)(5)(v)	Each rim space vent shall be gasketed.
63.119(b)(5)(vi)	Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.
63.119(b)(5)(vii)	Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
63.119(b)(6)	Each cover or lid on any opening in the internal floating roof shall be closed (i.e., no visible gaps), except when the cover or lid must be open for access. Covers on each access hatch and each gauge float well shall be bolted or fastened so as to be air-tight when they are closed. Rim space vents are to be set to open only when the internal floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain records of the following information:

a. the types of petroleum liquids stored in the tank; and

b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(L)(3)]

(2) Compliance with the tank repair requirements in 40 CFR Part 63, Subpart G has been determined to be as stringent or more stringent as the tank repair requirements of OAC rule 3745-21-09(L).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) [40 CFR 63, Subpart G] NESHAP FROM THE SYNTHETIC ORGANIC CHEMICAL MANUFACTURING INDUSTRY
The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, subpart G, including the following sections:

63.120(a)	*Storage Vessel Provisions:* To demonstrate compliance with 63.119(b) or 63.119(d), comply with the requirements of 63.120(a)(1) through (a)(7).
63.123(a)	*Recordkeeping*: Keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel.
63.123(c)	Keep records of each inspection required by 40 CFR 63.120(a).
63.123(g)	If an extension is requested for emptying a storage vessel per 40 CFR Part 63.120(a)(4), then keep in a readily accessible location, the documentation specified in 40 CFR Part 63.120(a)(4) as applicable.

e) Reporting Requirements

(1) [40 CFR 63, Subpart G] NESHAP FROM THE SYNTHETIC ORGANIC CHEMICAL MANUFACTURING INDUSTRY
The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 63, Subpart G, including the following sections::

63.120 – Inspection Notifications	
63.120(a)(5)	Except as provided in 40 CFR Part 63.120(a)(6), for all the inspections required by 40 CFR Part 63.120(a)(2)(ii), (a)(3)(i), and (a)(3)(iii), the permittee shall notify the Administrator in writing at least 30 calendar days prior to the refilling of each storage vessel to afford the Administrator the opportunity to have an observer present. TES grants permission to Toledo Refining Co. to refill storage vessels seven days after submitting the notifications in 40 CFR Part 63.120(a)(6) or 63.120(b)(10)(iii) for all storage vessels at a refinery.
63.120(a)(6)	If the inspection required by 40 CFR 63.120(a)(2)(ii), (a)(3)(i), or (a)(3)(iii) is not planned and the permittee could not have known about the inspection 30 calendar days in advance of refilling the vessel, the permittee shall notify the Administrator at least 7 calendar days prior to the refilling of the storage vessel. Notification may be made by telephone and immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, the notification including the written documentation may be made

	in writing and sent so that it is received by the Administrator at least 7 calendar days prior to refilling. TES grants permission to Toledo Refining Co. to refill storage vessels seven days after submitting the notifications in 40 CFR Part 63.120(a)(6) or 63.120(b)(10)(iii) for all storage vessels at a refinery.
63.122 – Storage Vessel Provisions - Reporting	
63.122(a)(4)	Submit Periodic Reports as required by 40 CFR 63.152 (c) and submit as part of the Periodic Reports the information specified in 40 CFR Part 63.122(d).
63.122(a)(5)	Submit, as applicable, other reports as required by 40 CFR 63.152(d), containing the information specified in 40 CFR 63.122(h)
63.122(d)	Submit, as part of the Periodic Report required under 40 CFR Part 63.152(c), the results of each inspection conducted in accordance with 40 CFR Part 63.120(a) in which a failure is detected in the control equipment. See 63.122(d)(1) and (d)(2) for the required information to submit.
63.122(h)	In order to afford the Administrator the opportunity to have an observer present, the permittee shall notify the Administrator of the refilling of a storage vessel that has been emptied and degassed. The notification shall meet the requirements of either 40 CFR Part 63.120(a)(5) or (a)(6), as applicable. TES grants permission to Toledo Refining Co. to refill storage vessels seven days after submitting the notifications in 40 CFR Part 63.120(a)(6) or 63.120(b)(10)(iii) for all storage vessels at a refinery.
63.152 – General Reporting for Periodic Reports and Other Reports	
63.152(c), (c)(1) and (c)(2)	Submit semiannual Periodic Reports and include all information specified in 40 CFR Part 63.122 for storage vessels, including reports of periods when monitored parameters are outside their established ranges.
63.152(d) and (d)(2)	Other reports shall be submitted as specified in 40 CFR Part 63, Subpart A or in 40 CFR Part 63.122. The reports for storage vessels are the notifications of inspections required by 40 CFR Part 63.122(h)(1) and (h)(2).

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

55. Emissions Unit Group - T05-Grp1, IFR, sp CC, Kb, 21-09(L): T036, T149, T158,

EU ID	Operations, Property and/or Equipment Description
T036	115,500 bbl internal floating roof storage tank [Tank 414]; (EFR to IFR conversion), Group 1 storage vessel, primary seal - mechanical seal
T149	10,000 bbl internal floating roof storage tank [Tank 505]; Group 1 storage vessel, single seal; primary seal - mechanical shoe
T158	100,000 bbl internal floating roof storage tank [Tank 153]; Group 1 storage vessel, primary seal - mechanical seal

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (*For T036*: PTI 04-00589 modified on 2/15/ 2001) (*For T149*: PTI 04-795 issued 1/27/93) (*For T158*: PTI 04-1037 issued 9/25/96)	 *For T036*: 3.45 tpy of volatile organic compounds (VOC). *For T149*: 0.46 tpy of volatile organic compounds (VOC) *For T158*: 8.6 tpy of volatile organic compounds (VOC)The annual emission limitation was established for PTI purposes to reflect the potential to emit for this emissions unit based on maximum annual throughput and maximum true vapor pressure. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation. See b)(2)a.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-21-09(L)	See b)(2)b.
c.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	Table 6 of 40 CFR Part 63, Subpart CC "General Provisions Applicability to Subpart CC" provides applicability provisions, definitions, and other general provisions of 40 CFR Part 63, Subpart A that are applicable to this emissions unit.
d.	40 CFR Part 63, Subpart CC (40 CFR 63.640-656) [In accordance with 40 CFR 63.640(a), 63.640(c)(2) and 63.641, this emissions unit is subject to Subpart CC as a Group 1 storage vessel; it is associated with petroleum refining process units located at a plant site and that is a major source as defined in section 112(a) of the Clean Air Act; and meets the definition of a Group 1 storage vessel as defined in 63.641.]	In accordance with 63.640(n)(1), the permittee of an existing Group 1 storage vessel subject that is also subject to the provisions of 40 CFR Part 60, Subpart Kb, is required to comply only with the requirements of 40 CFR Subpart Kb, except as provided in 63.640(n)(8). See b)(2)c. and b)(2)d.
e.	40 CFR Part 60, Subpart Kb (40 CFR 60.110b – 117b) [In accordance with 40 CFR 60.110b, this emissions unit is a storage vessel with a design capacity greater than 151 m^3 with a maximum true vapor pressure greater than 3.5 kilopascals that was reconstructed or modified after July 23, 1984.]	In accordance with 60.112b(a), the permittee shall equip the storage vessel with a fixed roof in combination with an internal floating roof meeting the specifications in 60.112b(a)(1). See c)(1).

(2) Additional Terms and Conditions

a. The requirements of this rule include compliance with the requirements of 40 CFR Part 60, Subpart Kb and OAC rule 3745-21-09(L).

b. No fixed roof tank can store a petroleum liquid with a true vapor pressure greater than 1.52 psi unless it is equipped with an internal floating roof.

c. Failure to perform inspections and monitoring required by this subpart shall constitute a violation of the applicable standard of this subpart.

d. MACT status (Group 1 or Group 2) is determined by the type of material being stored in the tank as defined by 40 CFR 63.641. If an existing tank changes from a Group 1 to Group 2 storage vessel where the material stored is less than 1.51 psia (maximum true vapor pressure) or 4% by weight of HAPS, then the tank is only subject to the recordkeeping requirements of 40 CFR 63.123(a) of Subpart G and 63.655(i)(1)(iv) of Subpart CC and is not required to comply with any other provisions in 40 CFR 63.119 through 63.123 of Subpart G.

c) Operational Restrictions

(1) The permittee shall install the following control equipment and shall maintain tank vents, seals, and or covers as follows:

a. The fixed roof storage tank shall be equipped with an internal floating roof.

b. The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports.

c. The rim vents, if present, shall be set to open or at the manufacturer=s recommended setting when the roof is being floated off the roof leg supports.

d. All openings, except stub drains, shall be equipped with a cover, seal, or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-21-09(L)(1)]

(2) [40 CFR 60, Subpart Kb] STANDARDS OF PERFORMANCE FOR VOLATILE ORGANIC LIQUID STORAGE VESSELS

The permittee shall comply with the applicable restrictions required in 40 CFR 60, Subpart Kb, including the following sections:

60.112b(a) Standards for volatile organic compounds	
60.112b(a)(1)	The permittee shall equip the storage vessel with a fixed roof in combination with an internal floating roof meeting the following specifications:
60.112b(a)(1)(i)	The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the

	process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.
60.112b(a)(1)(ii)	The internal floating roof shall be equipped with a mechanical shoe seal between the wall of the storage vessel and the edge of the internal floating roof. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.
60.112b(a)(1)(iii)	Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.
60.112b(a)(1)(iv)	Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.
60.112b(a)(1)(v)	Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.
60.112b(a)(1)(vi)	Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.
60.112b(a)(1)(vii)	Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.
60.112b(a)(1)(viii)	Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
60.112b(a)(1)(ix)	Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain records of the following information:

a. the types of petroleum liquids stored in the tank;

b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute; and

c. any period of time in which the automatic bleeder vents, rim vents, and all openings other than stub drains were not maintained as required in this permit and per the rules.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(L)(3) and (L)(4)]

(2) Compliance with the tank repair requirements in 40 CFR Part 63, Subpart CC has been determined to be as stringent or more stringent as the tank repair requirements of OAC rule 3745-21-09(L).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES
The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, Subpart CC, including the following sections:

63.640(n)(8)	Storage vessels described by 40 CFR Part 63.640(n)(1) are to comply with 40 CFR Part 60, Subpart Kb except as provided for in the following paragraphs:
63.640(n)(8)(i)	Storage vessels that are to comply with 40 CFR Part 60.112b(a)(2) of Subpart Kb are exempt from the secondary seal requirements of 40 CFR Part 60.112b(a)(2)(i)(B) during the gap measurements for the primary seal required by 40 CFR Part 60.113b(b) of Subpart Kb.
63.640(n)(8)(ii)	If the permittee determines that it is unsafe to perform the seal gap measurements required in 40 CFR Part 60.113(b) of Subpart Kb or to inspect the vessel to determine compliance with 40 CFR Part 60.113b(a) of Subpart Kb because the roof appears to be structurally unsound and poses an imminent danger to inspecting personnel, the permittee shall comply with the requirements in either 40 CFR Part 63.120(b)(7)(i) or 63.120(b)(7)(ii) of Subpart G.
63.640(n)(8)(iii)	If a failure is detected during the inspections required by 40 CFR Part 60.113b(a)(2) and the vessel cannot be repaired within 45 days and the vessel cannot be emptied within 45 days, the permittee may utilize up to two extensions of up to

	30 additional calendar days each. The permittee is not required to provide a request for the extension to the Administrator

(4) [40 CFR 60, Subpart Kb] STANDARDS OF PERFORMANCE FOR VOLATILE ORGANIC LIQUID STORAGE VESSELS

The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 60, Subpart Kb, including the following sections:

60.113b Inspections	
60.113b(a)(1)	*Inspections prior to filling the tank*: Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, then repair the items before filling the storage vessel.
60.113b(a)(2)	*Annual Inspections*: For vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. Note: Follow the requirements of 63.640(n)(8)(iii) if a failure is detected and the vessel cannot be emptied within 45 days and the vessel cannot be emptied within 45 days.
60.113b(a)(4)	*Inspections when tank is emptied and degassed*: Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the permittee shall repair the items as necessary so that None of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in 40 CFR Part 60.113b(a)(2).

60.115b(a)(2)	*Recordkeeping Requirements*: The permittee shall keep a record of each inspection performed as required by 40 CFR Part 60.113b(a). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).
60.116b Monitoring Requirements	
60.116b(a)	Keep copies of all records required by 40 CFR Part 60, Subpart Kb for at least 5 years, except for the record required by 40 CFR Part 60.116b(b) which will be kept for the life of the source.
60.116b(b)	Keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.
60.116b(c)	Maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure (to determine the maximum true vapor pressure, see 40 CFR Part 60.116b(e)) of that VOL during the respective storage period.

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the occurrence, of any period of time in which the automatic bleeder vents, rim vents, and all openings other than stub drains were not maintained as required in this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(L)(4)]

(3) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES
The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 63, Subpart CC, including the following sections:

63.640(n)(8)	Storage vessels described by 40 CFR Part 63.640(n)(1) are to comply with 40 CFR Part 60, Subpart Kb except as provided for in the following paragraphs:

63.640(n)(8)(iv)	If an extension is utilized in accordance with 40 CFR Part 63.640(n)(8)(iii), the permittee shall, in the next periodic report, identify the vessel, provide the information listed in 40 CFR Part 60.113b(a)(2) and describe the nature and date of the repair made or provide the date the storage vessel was emptied.
63.640(n)(8)(v)	Permittees of storage vessels complying with Subpart Kb of Part 60 may submit the inspection reports required by 40 CFR Part 60.115b(a)(3), of Subpart Kb as part of the periodic reports required by this Subpart, rather than within the 30-day period specified in 40 CFR Part 60.115b(a)(3) of Subpart Kb.

(4) [40 CFR 60, Subpart Kb] STANDARDS OF PERFORMANCE FOR VOLATILE ORGANIC LIQUID STORAGE VESSELS
The permittee shall comply with the applicable reporting requirements required in 40 CFR 60, Subpart Kb, including the following sections:

60.113b(a)(5)	Notification requirements prior to filling or refilling the tank. TES grants permission to refill each storage vessel subject to 40 CFR 60, Subpart Kb seven days after receiving notification in writing of via Air Services from the permittee.
60.115(a)(3)	If any of the conditions described in 40 CFR Part 60.113b(a)(2) are detected during the annual visual inspection, a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made. NOTE: As an option, 40 CFR 63.640(n)(8)(v) allows this report to be submitted with the 40 CFR 63, Subpart CC periodic reports.

f) Testing Requirements

(1) Compliance with the VOC emission limitation in b)(1) shall be determined using the latest version of TANKS software (TANKS 4) or equivalent, using the annual throughput and annual average vapor pressure.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

56. Emissions Unit Group - T06-Grp2, IFR, sp CC, 21-09(L): T081, T085, T088, T089,

EU ID	Operations, Property and/or Equipment Description
T081	81,326 bbl internal floating roof storage tank [Tank 164]; Group 2 storage vessel with dual seals; primary seal - mechanical shoe
T085	10,072 bbl internal floating roof storage tank [Tank 507]; Group 2 storage vessel; primary seal - liquid mounted, resilient foam filled
T088	10,095 bbl internal floating roof storage tank [Tank 506]; Group 2 storage vessel; primary seal - mechanical seal
T089	150,000 bbl internal floating roof storage tank [Tank 437]; Group 2 storage vessel; primary seal - rim mounted, flexible wiper; secondary seal - rim mounted, flexible wiper

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-21-09(L)	See b)(2)a.
b.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	Table 6 of 40 CFR Part 63, Subpart CC "General Provisions Applicability to Subpart CC" provides applicability provisions, definitions, and other general provisions of 40 CFR Part 63, Subpart A that are applicable to this emissions unit.
c.	40 CFR Part 63, Subpart CC (40 CFR 63.640-656) [In accordance with 40 CFR 63.640(a), 63.640(c)(2) and 63.641, this emissions unit is subject to Subpart CC as a Group 2 storage vessel; it is associated with	40 CFR 63, Subpart CC, establishes no emission limitation or control measures for Group 2 storage vessels. See b)(2)b.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	petroleum refining process units located at a plant site that is a major source as defined in section 112(a) of the Clean Air Act; and meets the definition of a Group 2 storage vessel as defined in 63.641.]	

(2) Additional Terms and Conditions

a. No fixed roof tank can store a petroleum liquid with a true vapor pressure greater than 1.52 psi unless it is equipped with an internal floating roof.

b. [63.640(m)]
If a change that does not meet the criteria in 63.640(l) is made to a petroleum refining process unit subject to 40 CFR Part 63 Subpart CC, 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 emissions units 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 Director and 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 affect 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.

c) Operational Restrictions

(1) The permittee shall install the following equipment and shall maintain tank vents, seals, and or covers as follows:

a. The fixed roof storage tank shall be equipped with an internal floating roof.

b. The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports.

c. The rim vents, if present, shall be set to open or at the manufacturer's recommended setting when the roof is being floated off the roof leg supports.

d. All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-21-09(L)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain records of the following information:

a. the types of petroleum liquids stored in the tank;

b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute; and

c. of any period of time in which the automatic bleeder vents, rim vents, and all openings other than stub drains were not maintained as required in this permit and per the rules.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(L)(3) and (L)(4)]

(2) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES
The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, subpart CC, including the following sections:

63.646(b), (b)(1) and (b)(2)	*Storage Vessel Provisions:* Maintain records of the storage vessel's group determination as defined by 40 CFR Part 63.641. Use good engineering judgment or test results to determine the stored liquid weight percent total organic HAP. Method 18 of 40 CFR Part 60, Appendix A shall be used to determine the average weight percent of organic HAP in the liquid if the permittee and Administrator do not agree.
63.655(i)(1)(iv)]	Maintain a record of any data, assumptions, and procedures used to make the determination that this storage vessel is Group 2, e.g., that the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent.

63.642(e)	The permittee shall keep copies of all applicable reports and records required by this permit for at least 5 years except as otherwise specified in this permit. All applicable records shall be maintained in such a manner that they can be readily accessed within 24 hours. Records may be maintained in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, floppy disk, magnetic tape, or microfiche.

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the occurrence, of any period of time in which the automatic bleeder vents, rim vents, and all openings other than stub drains were not maintained as required in this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(L)(4)]

(3) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES
The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 63, Subpart CC, including the following sections:

63.640(m)	The permittee shall submit a compliance schedule in a periodic report describing any operational process change to this emission unit that causes it to change from a group 2 to a group 1 emission unit.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

57. Emissions Unit Group - T07-Grp2, FR spCC, 21-09(L): T016, T019, T021, T022, T023, T024, T025, T026, T042, T043, T045, T051, T079, T082, T100, T113, T127,

EU ID	Operations, Property and/or Equipment Description
T016	53,776 bbl fixed roof storage tank [Tank 432]; Group 2 storage vessel
T019	53,517 bbl fixed roof storage tank [Tank 428]; Group 2 storage vessel
T021	5,581 bbl fixed roof storage tank [Tank 122, spent caustic]; Group 2 storage vessel
T022	3,137 bbl fixed roof storage tank [Tank 183]; Group 2 storage vessel
T023	10,495 bbl fixed roof storage tank [Tank 125]; Group 2 storage vessel
T024	53,782 bbl fixed roof storage tank [Tank 431]; Group 2 storage vessel
T025	10,062 bbl fixed roof storage tank [Tank 186]; Group 2 storage vessel
T026	3,138 bbl fixed roof storage tank [Tank 185]; Group 2 storage vessel
T042	10,071 bbl fixed roof storage tank [Tank 509]; Group 2 storage vessel
T043	53,519 bbl fixed roof storage tank [Tank 430]; Group 2 storage vessel
T045	53,622 bbl fixed roof storage tank [Tank 429]; Group 2 storage vessel
T051	54,419 bbl fixed roof storage tank [Tank 154]; Group 2 storage vessel
T079	10,072 bbl fixed roof storage tank [Tank 508]; Group 2 storage vessel
T082	54,489 bbl fixed roof storage tank [Tank 1601]; Group 2 storage vessel
T100	10,000 bbl fixed roof storage tank [Tank 15]; Group 2 storage vessel
T113	3,000 bbl fixed roof storage tank [Tank 9401]; Group 2 storage vessel
T127	10,460 bbl fixed roof storage tank [Tank 124]; Group 2 storage vessel

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not

exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-21-09(L)	See b)(2)a.
b.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	Table 6 of 40 CFR Part 63, Subpart CC "General Provisions Applicability to Subpart CC" provides applicability provisions, definitions, and other general provisions of 40 CFR Part 63, Subpart A that are applicable to this emissions unit.
c.	40 CFR Part 63, Subpart CC (40 CFR 63.640-656) [In accordance with 40 CFR 63.640(a), 63.640(c)(2) and 63.641, this emissions unit is subject to Subpart CC as a Group 2 storage vessel; it is associated with petroleum refining process units located at a plant site that is a major source as defined in section 112(a) of the Clean Air Act; and meets the definition of a Group 2 storage vessel as defined in 63.641.]	40 CFR 63, Subpart CC, establishes no emission limitation or control measures for Group 2 storage vessels. See b)(2)b.
d.	*Applicable to T127 only*: OAC rule 3745-31-05(A)(3) (PTI 04-480 issued 9/21/88)	The total combined emissions for emissions units T127 and T128 shall not exceed 2.72 tons of organic compounds (OC) per year. The annual emission limitation was established for PTI purposes to reflect the potential to emit for these emission units based on maximum annual throughput and maximum true vapor pressure. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(L).

(2) Additional Terms and Conditions

a. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid that, as stored, has a true vapor pressure greater than 1.52 pounds per square inch absolute, unless the tank is equipped with an internal floating roof (or equivalent control approved by the Director) in accordance with the requirements of paragraph (L)(1) of OAC rule 3745-21-09 prior to storing a petroleum liquid with a higher vapor pressure.

b. [63.640(m)]
If a change that does not meet the criteria in 63.640(l) is made to a petroleum refining process unit subject to 40 CFR Part 63 Subpart CC, 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 emissions units 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 Director and 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 affect 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.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain records of the following information:

a. the types of petroleum liquids stored in the tank;

b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 psia.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(L)(3)]

(2) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES
The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, subpart CC, including the following sections:

63.646(b), (b)(1) and (b)(2)	*Storage Vessel Provisions:* Maintain records of the storage vessel's group determination as defined by 40 CFR Part 63.641. Use good engineering judgment or test results to determine the stored liquid weight percent total organic HAP. Method 18 of 40 CFR Part 60, Appendix A shall be used to determine the average weight percent of organic HAP in the liquid if the permittee and Administrator do not agree.
63.655(i)(1)(iv)]	Maintain a record of any data, assumptions, and procedures used to make the determination that this storage vessel is Group 2, e.g., that the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent.
63.642(e)	The permittee shall keep copies of all applicable reports and records required by this permit for at least 5 years except as otherwise specified in this permit. All applicable records shall be maintained in such a manner that they can be readily accessed within 24 hours. Records may be maintained in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, floppy disk, magnetic tape, or microfiche.

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) If the permittee places, stores, or holds, in the fixed roof tank, any petroleum liquid with a true vapor pressure that is greater than 1.52 pounds per square inch absolute and such tank does not comply with the requirements of paragraph (L)(1) of OAC rule 3745-21-09, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence. The date that such

petroleum liquid was first stored in the tank, the date removed (if removed), the total gallons throughput of each petroleum liquid exceeding this vapor pressure, and the proposed method of compliance shall be included in the report.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(L)(4)]

(3) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES
The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 63, Subpart CC, including the following sections:

63.640(m)	The permittee shall submit a compliance schedule in a periodic report describing any operational process change to this emission unit that causes it to change from a group 2 to a group 1 emission unit.

f) Testing Requirements

(1) For emissions unit T127, compliance with the OC emission limitation shall be determined using the latest version of TANKS software (TANKS 4) or equivalent, using the annual throughput and annual average vapor pressure. This annual value shall be added to the calculated annual value for emissions unit T128.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

58. Emissions Unit Group - T08-Grp2, IFR, spF&G, 21-09(L): T028, T101,

EU ID	Operations, Property and/or Equipment Description
T028	25,000 bbl internal floating roof storage tank [Tank 143]; Group 2 storage vessel as defined by 40 CFR 63, Subpart G; Primary seal - liquid mounted, resilient foam filled
T101	15,000 bbl internal floating roof storage tank [Tank 144]; Group 2 storage vessel as defined by 40 CFR 63, Subpart G; Primary seal - mechanical shoe

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-21-09(L)	See b)(2)a.
c.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	In accordance with 63.103(a), Table 3 of 40 CFR Part 63, Subpart F provides applicability provisions, definitions, and other general provisions of 40 CFR Part 63, Subpart A that are applicable to this emissions unit.
d.	40 CFR Part 63, Subpart F (40 CFR 63.100-107) [In accordance with 40 CFR 63.100, the provisions of Subparts F, G, and H of this part apply to chemical manufacturing process units that meet all the criteria specified in 63.100(b) (i.e, located at a major source; manufactures a chemical listed in Table 1; and uses as a product one of the HAPs listed in Table 2). In accordance with 63.100(g), this storage vessel is a	This Subpart provides applicability provisions, definitions, and other general provisions that are applicable to Subpart G.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	part of the chemical manufacturing process unit.]	
e.	40 CFR Part 63, Subpart G (40 CFR 63.110-153) [In accordance with 40 CFR 63.110(a), Subpart G is applicable to storage vessels located at a facility subject to Subpart F. This storage vessel is subject to Subpart G as an existing Group 2 storage vessel as defined in 63.111.]	In accordance with 40 CFR 63.119(a)(3), for each Group 2 storage vessel, the permittee shall comply with the record keeping requirements in 40 CFR Part 63.123(a) of Subpart G and is not required to comply with any other provisions in 40 CFR Part 63.119 through 63.123 of Subpart G.

(2) Additional Terms and Conditions

a. No fixed roof tank can store a petroleum liquid with a true vapor pressure greater than 1.52 psi unless it is equipped with an internal floating roof.

c) Operational Restrictions

(1) The permittee shall install the following equipment and shall maintain tank vents, seals, and or covers as follows:

a. The fixed roof storage tank shall be equipped with an internal floating roof.

b. The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports.

c. The rim vents, if present, shall be set to open or at the manufacturer's recommended setting when the roof is being floated off the roof leg supports.

d. All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-21-09(L)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain records of the following information:

a. the types of petroleum liquids stored in the tank;

b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute; and

c. of any period of time in which the automatic bleeder vents, rim vents, and all openings other than stub drains were not maintained as required in this permit and per the rules.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(L)(3) and (L)(4)]

(2) If an operational process change occurs, maintain a record of any data, assumptions, and procedures used to make the determination to ensure this storage vessel is still Group 2 per the definition in 40 CFR 63.111.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) [40 CFR 63, Subpart G] NESHAP FROM THE SYNTHETIC ORGANIC CHEMICAL MANUFACTURING INDUSTRY
The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, subpart G, including the following sections:

63.123(a)	*Recordkeeping*: Keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel.

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the occurrence, of any period of time in which the automatic bleeder vents, rim vents, and all openings other than stub drains were not maintained as required in this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(L)(4)]

(3) [40 CFR 63, Subpart G] NESHAP FROM THE SYNTHETIC ORGANIC CHEMICAL MANUFACTURING INDUSTRY
The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 63, Subpart G, including the following sections::

63.152 – General Reporting	
63.152(c)(4)	Submit a notification and compliance schedule in a periodic report if this Group 2 storage vessel becomes a Group 1 storage vessel, as defined in 40 CFR 63.111.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

59. Emissions Unit Group - T10-Grp2, spCC, 21-09(L), PTI: T150, T161, T162,

EU ID	Operations, Property and/or Equipment Description
T150	15,000 bbl fixed roof storage tank [Tank 134]; Group 2 storage vessel
T161	80,000 bbl fixed roof storage tank [Tank 197]; Group 2 storage vessel
T162	80,000 bbl fixed roof storage tank [Tank 199]; Group 2 storage vessel

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (*For T150*: PTI 04-00796 issued 1/27/93) (*For T161*: PTI 04-1168 issued 3/7/02) (*For T162*: PTI 04-01230 issued 11/16/2000)	*For T150*: 0.08 tpy of volatile organic compounds (VOC) *For T161*: 2.61 tpy of volatile organic compounds (VOC) *For T162*: 2.61 tpy of volatile organic compounds (VOC) The annual emission limitation was established for PTI purposes to reflect the potential to emit for these emission units based on maximum annual throughput and maximum true vapor pressure. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(L).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-21-09(L)	See b)(2)a.
c.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	Table 6 of 40 CFR Part 63, Subpart CC "General Provisions Applicability to Subpart CC" provides applicability provisions, definitions, and other general provisions of 40 CFR Part 63, Subpart A that are applicable to this emissions unit.
d.	40 CFR Part 63, Subpart CC (40 CFR 63.640-656) [In accordance with 40 CFR 63.640(a), 63.640(c)(2) and 63.641, this emissions unit is subject to Subpart CC as a Group 2 storage vessel; it is associated with petroleum refining process units located at a plant site and that is a major source as defined in section 112(a) of the Clean Air Act; and meets the definition of a Group 2 storage vessel as defined in 63.641.]	40 CFR 63, Subpart CC, establishes no emission limitation or control measures for Group 2 storage vessels. See b)(2)b.
e.	40 CFR Part 60, Subpart Kb (40 CFR 60.110b – 117b)	Exempt, see b)(2)c.

(2) Additional Terms and Conditions

a. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid that, as stored, has a true vapor pressure greater than 1.52 pounds per square inch absolute, unless the tank is equipped with an internal floating roof (or equivalent control approved by the Director) in accordance with the requirements of paragraph (L)(1) of OAC rule 3745-21-09 prior to storing a petroleum liquid with a higher vapor pressure.

b. [63.640(m)]
If a change that does not meet the criteria in 63.640(l) 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 emissions units 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 Director and 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 affect 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.

c) Operational Restrictions

(1) [OAC rule 3745-21-09(L)(1)]
The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than 1.52 pounds per square inch absolute (psia).

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain records of the following information for the fixed roof tank:

a. the types of petroleum liquids stored in the tank; and

b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each petroleum liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

These records shall be maintained for at least 5 years and shall be made available to the Director or his representative upon verbal or written request.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(L)(3)]

(2) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES
The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, subpart CC, including the following sections:

63.646(b), (b)(1) and (b)(2)	*Storage Vessel Provisions:* Maintain records of the storage vessel's group determination as defined by 40 CFR Part 63.641.

	Use good engineering judgment or test results to determine the stored liquid weight percent total organic HAP. Method 18 of 40 CFR Part 60, Appendix A shall be used to determine the average weight percent of organic HAP in the liquid if the permittee and Administrator do not agree.
63.655(i)(1)(iv)]	Maintain a record of any data, assumptions, and procedures used to make the determination that this storage vessel is Group 2, e.g., that the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent.
63.642(e)	The permittee shall keep copies of all applicable reports and records required by this permit for at least 5 years except as otherwise specified in this permit. All applicable records shall be maintained in such a manner that they can be readily accessed within 24 hours. Records may be maintained in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, floppy disk, magnetic tape, or microfiche.

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) If the permittee places, stores, or holds, in the fixed roof tank, any petroleum liquid with a true vapor pressure that is greater than 1.52 pounds per square inch absolute and such tank does not comply with the requirements of paragraph (L)(1) of OAC rule 3745-21-09, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence. The date that such petroleum liquid was first stored in the tank, the date removed (if removed), the total gallons throughput of each petroleum liquid exceeding this vapor pressure, and the proposed method of compliance shall be included in the report.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(L)(4)]

(3) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES
The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 63, Subpart CC, including the following sections:

63.640(m)	The permittee shall submit a compliance schedule in a periodic report describing any operational process change to this emission unit that causes it to change from a group 2 to a group 1 emission unit.

f) Testing Requirements

(1) Compliance with the OC emission limitation shall be determined using the latest version of TANKS software (TANKS 4) or equivalent, using the annual throughput and annual average vapor pressure.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

60. Emissions Unit Group - T11-Grp2, spF&G, 21-09(L),PTI: T153, T154,

EU ID	Operations, Property and/or Equipment Description
T153	7,500 bbl internal floating roof storage tank [Tank 193]; Group 2 storage vessel, single seal; primary seal - mechanical shoe
T154	7,500 bbl internal floating roof storage tank [Tank 194]; Group 2 storage vessel, single seal; primary seal - mechanical shoe

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (*For T153*: PTI 04-881 issued 1/26/94) (*For T154*: PTI 04-881 issued 1/26/94)	*For T153*: 0.88 ton volatile organic compound (VOC) per year *For T154*: 0.82 ton volatile organic compound (VOC) per year The annual emission limitation was established for PTI purposes to reflect the potential to emit for these emission units based on maximum annual throughput and maximum true vapor pressure. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(L).
b.	OAC rule 3745-21-09(L)	See b)(2)a.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	In accordance with 63.103(a), Table 3 of 40 CFR Part 63, Subpart F provides applicability provisions, definitions, and other general provisions of 40 CFR Part 63, Subpart A that are applicable to this emissions unit.
d.	40 CFR Part 63, Subpart F (40 CFR 63.100-107) [In accordance with 40 CFR 63.100, the provisions of Subparts F, G, and H of this part apply to chemical manufacturing process units that meet all the criteria specified in 63.100(b) (i.e., located at a major source; manufactures a chemical listed in Table 1; and uses as a product one of the HAPs listed in Table 2). In accordance with 63.100(g), this storage vessel is a part of the chemical manufacturing process unit.]	This Subpart provides applicability provisions, definitions, and other general provisions that are applicable to Subpart G.
e.	40 CFR Part 63, Subpart G (40 CFR 63.110-153) [In accordance with 40 CFR 63.110(a), Subpart G is applicable to storage vessels located at a facility subject to Subpart F. This storage vessel is subject to Subpart G as an existing Group 2 storage vessel as defined in 63.111.]	In accordance with 40 CFR 63.119(a)(3), for each Group 2 storage vessel, the permittee shall comply with the record keeping requirements in 40 CFR Part 63.123(a) of Subpart G and is not required to comply with any other provisions in 40 CFR Part 63.119 through 63.123 of Subpart G.

(2) Additional Terms and Conditions

a. No fixed roof tank can store a petroleum liquid with a true vapor pressure greater than 1.52 psi unless it is equipped with an internal floating roof.

c) Operational Restrictions

(1) The permittee shall install the following equipment and shall maintain tank vents, seals, and or covers as follows:

a. The fixed roof storage tank shall be equipped with an internal floating roof.

b. The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports.

c. The rim vents, if present, shall be set to open or at the manufacturer's recommended setting when the roof is being floated off the roof leg supports.

d. All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-21-09(L)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain records of the following information:

a. the types of petroleum liquids stored in the tank;

b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute; and

c. of any period of time in which the automatic bleeder vents, rim vents, and all openings other than stub drains were not maintained as required in this permit and per the rules.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(L)(3) and (L)(4)]

(2) If an operational process change occurs, maintain a record of any data, assumptions, and procedures used to make the determination to ensure this storage vessel is still Group 2 per the definition in 40 CFR 63.111.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) [40 CFR 63, Subpart G] NESHAP FROM THE SYNTHETIC ORGANIC CHEMICAL MANUFACTURING INDUSTRY
The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, subpart G, including the following sections:

.123(a)	*cordkeeping*: Keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel.

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the occurrence, of any period of time in which the automatic bleeder vents, rim vents, and all openings other than stub drains were not maintained as required in this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(L)(4)]

(3) [40 CFR 63, Subpart G] NESHAP FROM THE SYNTHETIC ORGANIC CHEMICAL MANUFACTURING INDUSTRY
The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 63, Subpart G, including the following sections:

63.152 – General Reporting	
63.152(c)(4)	Submit a notification and compliance schedule in a periodic report if this Group 2 storage vessel becomes a Group 1 storage vessel, as defined in 40 CFR 63.111.

f) Testing Requirements

(1) Compliance with the VOC emission limitation shall be determined using the latest version of TANKS software (TANKS 4) or equivalent, using the annual throughput and annual average vapor pressure.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

61. Emissions Unit Group - T12-Grp2, IFR, spCC, 21-09(L) PT: T124, T125,

EU ID	Operations, Property and/or Equipment Description
T124	13,000 bbl internal floating roof storage tank [Tank 128]; Group 2 storage vessel with dual seals; primary seal - mechanical seal
T125	10,600 bbl internal floating roof storage tank [Tank 129]; Group 2 storage vessel with dual seals; primary seal - mechanical seal

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (*For T124 and T125*: PTI 04-00419 issued 12/30/87)	*For T124 and T125*: The total combined emissions for emissions units T124 and T125 shall not exceed 8.53 tons of organic compounds (OC) per year. The annual combined emission limitation was established for PTI purposes to reflect the potential to emit for these emissions units based on maximum annual throughput and maximum true vapor pressure. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(L).

b.	OAC rule 3745-21-09(L)	See b)(2)a.
c.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	Table 6 of 40 CFR Part 63, Subpart CC "General Provisions Applicability to Subpart CC" provides applicability provisions, definitions, and other general provisions of 40 CFR Part 63, Subpart A that are applicable to this emissions unit.
d.	40 CFR Part 63, Subpart CC (40 CFR 63.640-656) [In accordance with 40 CFR 63.640(a), 63.640(c)(2) and 63.641, this emissions unit is subject to Subpart CC as a Group 2 storage vessel; it is associated with petroleum refining process units located at a plant site that is a major source as defined in section 112(a) of the Clean Air Act; and meets the definition of a Group 2 storage vessel as defined in 63.641.]	40 CFR 63, Subpart CC, establishes no emission limitation or control measures for Group 2 storage vessels. See b)(2)b.

(2) Additional Terms and Conditions

a. No fixed roof tank can store a petroleum liquid with a true vapor pressure greater than 1.52 psi unless it is equipped with an internal floating roof.

b. [63.640(m)]
If a change that does not meet the criteria in 63.640(l) is made to a petroleum refining process unit subject to 40 CFR Part 63 Subpart CC, 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 emissions units 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 Director and 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 affect 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.

c) Operational Restrictions

(1) The permittee shall install the following equipment and shall maintain tank vents, seals, and or covers as follows:

a. The fixed roof storage tank shall be equipped with an internal floating roof.

b. The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports.

c. The rim vents, if present, shall be set to open or at the manufacturer's recommended setting when the roof is being floated off the roof leg supports.

d. All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-21-09(L)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain records of the following information:

a. the types of petroleum liquids stored in the tank;

b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute; and

c. of any period of time in which the automatic bleeder vents, rim vents, and all openings other than stub drains were not maintained as required in this permit and per the rules.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(L)(3) and (L)(4)]

(2) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES
The permittee shall comply with the applicable monitoring and record keeping requirements required in 40 CFR 63, subpart CC, including the following sections:

63.646(b), (b)(1) and (b)(2)	*Storage Vessel Provisions:* Maintain records of the storage vessel's group determination as defined by 40 CFR Part 63.641. Use good engineering judgment or test results to determine the stored liquid weight percent total organic HAP. Method 18 of 40 CFR Part 60, Appendix A shall be used to determine the average weight percent of organic HAP in the liquid if the permittee and Administrator do not agree.
63.655(i)(1)(iv)]	Maintain a record of any data, assumptions, and procedures used to make the determination that this storage vessel is Group 2, e.g., that the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent.
63.642(e)	The permittee shall keep copies of all applicable reports and records required by this permit for at least 5 years except as otherwise specified in this permit. All applicable records shall be maintained in such a manner that they can be readily accessed within 24 hours. Records may be maintained in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, floppy disk, magnetic tape, or microfiche.

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of the occurrence, of any period of time in which the automatic bleeder vents, rim vents, and all openings other than stub drains were not maintained as required in this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(L)(4)]

(3) [40 CFR 63, Subpart CC] NESHAP FROM PETROLEUM REFINERIES
The permittee shall submit semiannual reports and other such notifications and reports via the Air Services component of the Ohio EPA's eBusiness Center as are required pursuant to 40 CFR Part 63, Subpart CC, including the following sections:

63.640(m)	The permittee shall submit a compliance schedule in a periodic report describing any operational process change to this emission unit that causes it to change from a group 2 to a group 1 emission unit.

f) Testing Requirements

(1) Compliance with the OC emission limitation shall be determined using the latest version of TANKS software (TANKS 4) or equivalent, using the annual throughput and annual average vapor pressure. This annual value shall be added to the calculated annual value for emissions unit T125.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.