



John R. Kasich, Governor
 Mary Taylor, Lt. Governor
 Craig W. Butler, Director

8/7/2015

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

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
 Facility ID: 0448010246
 Permit Number: P0119081
 Permit Type: OAC Chapter 3745-31 Modification
 County: Lucas

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
Yes	MACT/GACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	MAJOR GHG
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

How to appeal this permit

The issuance of this PTI 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
 77 South High Street, 17th Floor
 Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

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. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

How to give us feedback on your permitting experience

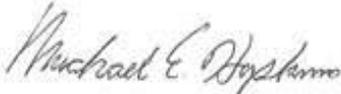
Please complete a survey at www.epa.ohio.gov/survey.aspx and give us feedback on your permitting experience. We value your opinion.

How to get an electronic copy of your permit

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Toledo Department of Environmental Services at (419)936-3015 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Michael E. Hopkins, P.E.
Assistant Chief, Permitting Section, DAPC

Cc: U.S. EPA
TDES; Michigan; Indiana; Canada



FINAL

**Division of Air Pollution Control
Permit-to-Install
for
Toledo Refining Company, LLC.**

Facility ID: 0448010246
Permit Number: P0119081
Permit Type: OAC Chapter 3745-31 Modification
Issued: 8/7/2015
Effective: 8/7/2015



Division of Air Pollution Control
Permit-to-Install
for
Toledo Refining Company, LLC.

Table of Contents

Authorization	1
A. Standard Terms and Conditions	3
1. Federally Enforceable Standard Terms and Conditions	4
2. Severability Clause	4
3. General Requirements	4
4. Monitoring and Related Record Keeping and Reporting Requirements.....	5
5. Scheduled Maintenance/Malfunction Reporting	6
6. Compliance Requirements	6
7. Best Available Technology	7
8. Air Pollution Nuisance	8
9. Reporting Requirements	8
10. Applicability	8
11. Construction of New Sources(s) and Authorization to Install	8
12. Permit-To-Operate Application	9
13. Construction Compliance Certification	10
14. Public Disclosure	10
15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations	10
16. Fees.....	10
17. Permit Transfers	10
18. Risk Management Plans	10
19. Title IV Provisions	10
B. Facility-Wide Terms and Conditions.....	11
C. Emissions Unit Terms and Conditions	13
1. Emissions Unit Group -F1 Flare Grp - EU P008 P009: P008,P009,	14



Final Permit-to-Install
Toledo Refining Company, LLC.
Permit Number: P0119081
Facility ID: 0448010246
Effective Date: 8/7/2015

Authorization

Facility ID: 0448010246
Facility Description: Refinery
Application Number(s): A0053578
Permit Number: P0119081
Permit Description: Chapter 31 modification permit that triggered NSPS 40 CFR Part 60, Subpart Ja requirements for the flares due to the new installation of two caustic treaters.
Permit Type: OAC Chapter 3745-31 Modification
Permit Fee: \$1,000.00
Issue Date: 8/7/2015
Effective Date: 8/7/2015

This document constitutes issuance to:

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

of a Permit-to-Install for the emissions unit(s) identified on the following page.

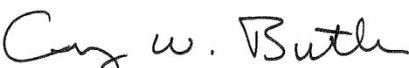
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

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

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency


Craig W. Butler
Director



Authorization (continued)

Permit Number: P0119081
Permit Description: Chapter 31 modification permit that triggered NSPS 40 CFR Part 60, Subpart Ja requirements for the flares due to the new installation of two caustic treaters.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

Group Name: F1 Flare Grp - EU P008 P009

Emissions Unit ID:	P008
Company Equipment ID:	PL9 Flare
Superseded Permit Number:	P0107345
General Permit Category andType:	Not Applicable
Emissions Unit ID:	P009
Company Equipment ID:	PL4 Flare
Superseded Permit Number:	P0117857
General Permit Category andType:	Not Applicable



Final Permit-to-Install
Toledo Refining Company, LLC.
Permit Number: P0119081
Facility ID: 0448010246
Effective Date: 8/7/2015

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.2.a), Severability Clause
 - (2) Standard Term and Condition A.3.c) through A. 3.e) General Requirements
 - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
 - (4) Standard Term and Condition A.9., Reporting Requirements
 - (5) Standard Term and Condition A.10., Applicability
 - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
 - (7) Standard Term and Condition A.14., Public Disclosure
 - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
 - (9) Standard Term and Condition A.16., Fees
 - (10) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

- a) 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.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they 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 and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

- a) 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 re-issuance, or modification.

- 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, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.
- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying 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.

4. 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, 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.
- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Toledo Department of Environmental Services.

- (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Toledo Department of Environmental Services. The written 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. See A.15. below if no deviations occurred during the quarter.
 - (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the Toledo Department of Environmental Services every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
 - (4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Toledo Department of Environmental Services in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

- a) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted

local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a Responsible Official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

- b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
- (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 ORC section 3704.08.
 - (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 Toledo Department of Environmental Services 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.

7. Best Available Technology

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

8. 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.

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Toledo Department of Environmental Services.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Toledo Department of Environmental Services. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, 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.)

10. Applicability

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s) not exempt from the requirement to obtain a Permit-to-Install.

11. Construction of New Sources(s) and Authorization to Install

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the

Director within a reasonable time before the termination date and the permittee shows good cause for any such extension.

- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit 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) by submitting a certification from the authorized 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 authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).
- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit 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). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

Unless otherwise exempted, no emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31 and OAC Chapter 3745-77 if the restarted operation is subject to one or more applicable requirements.

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

12. Permit-To-Operate Application

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if operation of the proposed new or modified source(s) as authorized by this permit would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d) must be obtained before operating the source in a manner that would violate the existing Title V permit requirements.

13. Construction Compliance Certification

The applicant shall identify the following dates in the "Air Services" facility profile for each new emissions unit identified in this permit.

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

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

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

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

16. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in "Air Services" once the transfer is legally completed. The change must be submitted through "Air Services" within thirty days of the ownership transfer date.

18. Risk Management Plans

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

19. 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.



Final Permit-to-Install
Toledo Refining Company, LLC.
Permit Number: P0119081
Facility ID: 0448010246
Effective Date: 8/7/2015

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) None.
2. 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: P008. 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]
3. 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: P008 and P009,. 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]
4. The following emissions units contained in this permit are subject to 40 CFR, Part 61, Subpart J, National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene: P008. 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 J]
5. The following emissions units contained in this permit are subject to 40 CFR, Part 60, Subpart J, Standards of Performance for Petroleum Refineries: P008, P009 for fuel combustion. 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]
6. The following emissions units contained in this permit are subject to 40 CFR, Part 60, Subpart Ja, Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007: P008 and P009 for fuel combustion. 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 Ja]



Final Permit-to-Install
Toledo Refining Company, LLC.
Permit Number: P0119081
Facility ID: 0448010246
Effective Date: 8/7/2015

C. Emissions Unit Terms and Conditions

1. Emissions Unit Group -F1 Flare Grp - EU P008 P009: P008,P009,

EU ID	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
P009	Plant 4 Flare (198 mmBtu/hr) with new flare tips; 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.	<p>OAC rule 3745-31-05(D)</p> <p>(P008 - PTI P0107345 issued March 2011)</p> <p>(P009 - PTI 04-01447 issued 9/29/06 and last modified on 12/23/2013)</p> <p>[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.]</p>	<p>The permittee requested that this unit become an affected facility subject to the requirements of 40 CFR Part 60, Subparts A and J.</p> <p>See b)(2)a. and b)(2)b.</p>
b.	40 CFR Part 63, Subpart A	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.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		See b)(2)c.
c.	40 CFR Part 63, Subpart CC	See b)(2)c.
d.	40 CFR Part 60, Subpart A	See b)(2)c.
e.	40 CFR Part 60, Subpart J	See b)(2)a.
f.	<p>40 CFR Part 60, Subpart Ja (40 CFR 60.100a-109a)</p> <p>[In accordance with 40 CFR 60.100a(a) and (b), this emissions unit is a flare where the provisions of this subpart apply only to flares which commence construction, modification or reconstruction after June 24, 2008. For the purposes of this subpart, a modification to a flare commences when a project that includes any of the activities in 40 CFR 60.100a(c)(1) or (2) of this section is commenced.]</p>	<p>Pursuant to 40 CFR Part 60.103a(h), the permittee shall not burn in any affected flare any fuel gas that contains H₂S in excess of 162 ppmv determined hourly on a 3-hour rolling average basis. 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 limit.</p> <p>See b)(2)e. and b)(2)f.</p>
g.	<p><i>Applies to P008:</i> 40 CFR Part 63, Subpart H (40 CFR 63.160-183)</p> <p>[In accordance with 40 CFR 63.172(d), this emissions unit acts as a control device for equipment subject to Subpart H]</p>	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.
h.	<p><i>Applies to P008:</i> 40 CFR Part 61, Subpart J (40 CFR 61.110-112)</p> <p>[In accordance with 40 CFR 61.110(a), this emissions unit has equipment that operates in benzene service: pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or</p>	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.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	systems.]	
i.	<i>Applies to P009:</i> 40 CFR Part 60, Subpart GGG	See b)(2)d. and b)(2)g.

(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 (H₂S) 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. 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. The permittee shall comply with the flare control device requirements found in 40 CFR Part 63.11, Subpart A.
- d. Pursuant to 40 CFR Part 63.640(p)(1), because this flare is a control device for an emissions unit that is subject to 40 CFR Part 60, Subparts A and GGG, 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.

 Pursuant to 40 CFR Part 63.640(p)(2), 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. Pursuant to 40 CFR part 60.101a(c), a modification to a flare occurs as provided in 40 CFR 60.100a(c)(1) or (2) of this section.

- i. (1) Any new piping from a refinery process unit, including ancillary equipment, or a fuel gas system is physically connected to the flare (e.g., for direct emergency relief or some form of continuous or intermittent venting). However, the connections described in 60.100a(c)(1)(i) through (vii) [paragraphs (a) through (g) below] are not considered modifications of a flare.
 - (a) Connections made to install monitoring systems to the flare.
 - (b) Connections made to install a flare gas recovery system or connections made to upgrade or enhance components of a flare gas recovery system (e.g., addition of compressors or recycle lines).
 - (c) Connections made to replace or upgrade existing pressure relief or safety valves, provided the new pressure relief or safety valve has a set point opening pressure no lower and an internal diameter no greater than the existing equipment being replaced or upgraded.
 - (d) Connections made for flare gas sulfur removal.
 - (e) Connections made to install back-up (redundant) equipment associated with the flare (such as a back-up compressor) that does not increase the capacity of the flare.
 - (f) Replacing piping or moving an existing connection from a refinery process unit to a new location in the same flare, provided the new pipe diameter is less than or equal to the diameter of the pipe/connection being replaced/moved.
 - (g) Connections that interconnect two or more flares.
 - ii. A flare is physically altered to increase the flow capacity of the flare.
 - f. In accordance with 40 CFR 60.103a(f), modified flares that have accepted applicability of subpart J under a federal consent decree shall comply with the subpart J requirements as specified in the consent decree, but shall comply with the requirements of 60.103a(h) of this section and the requirements of 60.107a(a)(2) by no later than November 11, 2015.
 - g. The requirements specified by this rule are equivalent to or less stringent than those specified by 40 CFR Part 63.11, Subpart A.
- c) Operational Restrictions
- (1) [CD, section J.48.a.]
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: *For EU P008*, 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 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.

NOTE: *For EU P009*, the permittee sent an Alternative Monitoring Plan to U.S. EPA dated August 7, 2009 requesting approval. U.S. EPA approved the alternative monitoring plan submitted by Sunoco on May 5, 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] 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

- a. [63.11(a)]
Control device requirements. Applicability. 40 CFR Part 63.11 contains requirements for control devices used to comply with provisions in relevant standards. These requirements apply only to affected emissions units covered by relevant standards referring directly or indirectly to this section.
- b. [63.11(b)]
 - i. [63.11(b)(1)]
Permittees using flares to comply with the provisions of 40 CFR Part 63, Subpart A, shall monitor these control devices to assure that they are operated and maintained in conformance with their designs.
 - ii. [63.11(b)(2)] and [60.18(c)(6)]
Flares shall be steam-assisted, air-assisted, or non-assisted.
 - iii. [63.11(b)(3)] and [60.18(e)]
Flares shall be operated at all times when emissions may be vented to them.
 - iv. [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.
 - v. [63.11(b)(6)]
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).
 - (a) [63.11(b)(6)(i)]
Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume) or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity V_{max} , as determined by the following equation:

$$V_{\max}=(X_{H_2}-K_1)* K_2$$

where:

V_{\max} = maximum permitted velocity, m/sec;

K_1 = constant, 6.0 volume-percent hydrogen;

K_2 = constant, 3.9(m/sec)/volume-percent hydrogen; and

X_{H_2} = the volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77 (Incorporated by reference as specified in 40 CFR Part 63.14).

The actual exit velocity of a flare shall be determined by the method specified in 40 CFR Part 63.11(b)(7)(i).

- (b) [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; or with the net heating value of the gas being combusted at 7.45 M/scm (200 Btu/scf) or greater if the flares is non-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).

vi. [63.11(b)(7)]

- (a) 63.11(b)(7)(i), [60.18(c)(4)(i)] and [60.18(f)(4)]
Steam-assisted and nonassisted 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.
- (b) [63.11(b)(7)(ii)] and [60.18(c)(4)(ii)]
Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in 40 CFR Part 63.11(b)(7)(i), 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).

- (c) [63.11(b)(7)(iii)] and [60.18(e)(5)]
Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in 40 CFR Part 63.11(b)(7)(i) [See section A.II], 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 following equation:

$$\text{Log}_{10}(V_{\max})=(H_T+28.8)/31.7$$

where:

V_{\max} = maximum permitted velocity, m/sec;

28.8 = constant;

31.7 = constant; and

H_T = the net heating value as determined in 40 CFR Part 63.11(b)(6).

- (4) See 40 CFR Part 60, subpart Ja (40 CFR 60.100a-109a).

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.
- the date, time, and duration of the relief;
 - the flare involved;
 - the process unit(s) associated with the relief;
 - the cause of the relief; and
 - the corrective actions taken.
- (2) The permittee shall record the following information each day:
- all periods during which there was no pilot flame; and
 - the operating times for the flare, monitoring equipment, and the associated emissions unit.
- (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.

- (4) [CD, section J.49.] 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) [CD, section K] 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 SO₂ emissions resulting from AG Flaring Incident shall be calculated by the following formula:

$$\text{Tons of SO}_2 = [\text{FR}][\text{TD}][\text{ConcH}_2\text{S}][8.44 \times 10^{-5}].$$

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

ConcH₂S = 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 H₂S/scf gas)

$$8.44 \times 10^{-5} = [\text{lb mole H}_2\text{S}/379 \text{ scf H}_2\text{S}][64 \text{ lbs SO}_2/\text{lb mole H}_2\text{S}][\text{Ton}/2000 \text{ lbs}]$$

The quantity of SO₂ 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 SO₂ 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 SO₂ emissions resulting from, an AG Flaring Incident that is comprised of intermittent AG Flaring, the quantity of SO₂ emitted shall be equal to the sum of the quantities of SO₂ flared during each 24-hour period starting when the Acid Gas was first flared.

ii. Calculation of the Rate of SO₂ Emissions During AG Flaring

The rate of SO₂ emissions resulting from AG Flaring Incident shall be expressed in terms of pounds per hour and shall be calculated by the following formula:

$$\text{ER} = [\text{FR}][\text{ConcH}_2\text{S}][0.169].$$

Where:

ER = Emission Rate in pounds of SO₂ per hour

$$0.169 = [\text{lb mole H}_2\text{S}/379 \text{ scf H}_2\text{S}][1.0 \text{ lb mole SO}_2/1 \text{ lb mole H}_2\text{S}][64 \text{ lb SO}_2/1.0 \text{ lb mole SO}_2]$$

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 SO₂ per hour, the emission rate shall be rounded to 20.0 pounds of SO₂ per hour; for a calculation that results in an emission rate of 20.05 pounds of SO₂ 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 ("ConcH₂S") 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.

(6) HYDROGEN SULFIDE (H₂S) CEM

The permittee shall install, calibrate, maintain, and operate a hydrogen sulfide (H₂S) continuous monitoring systems as follows:

- a. an instrument for continuously monitoring and recording the concentration (dry basis) of H₂S in fuel gases before being burned in any fuel gas combustion device.
 - i. The span value for this instrument is 425 mg/dscm H₂S.
 - 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 H₂S in the fuel gas being burned.
 - iii. The performance evaluations for this H₂S 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. hydrogen sulfide content of the fuel burned in parts per million for each cycle time of the analyzer, pursuant to 40 CFR Part 60.7(f);

- ii. hydrogen sulfide content of the fuel burned, in 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;
- vii. the date, time, and hours of operation of the emissions unit without the continuous hydrogen sulfide monitoring system;
- viii. the date, time, and hours of operation of the emissions unit during any malfunction of 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.

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.

NOTE: Refer to the notes in term c)(1) regarding the Alternative Monitoring Plan.

- (7) 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.

- (8) 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.

- (9) 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.
- (10) See 40 CFR Part 60, subpart Ja (40 CFR 60.100a-109a).

e) Reporting Requirements

- (1) 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 to the Toledo Division of Environmental Services by January 31 and July 31 of each year and shall cover the previous 6-month period.
- (2) 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 to the Toledo Division of Environmental Services by January 31, April 31, and July 31, and October 31 of each year and shall cover the previous calendar quarter.
- (3) [CD, section K.53.] 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.

(4) [H₂S CEM]

The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous hydrogen sulfide (H₂S) monitoring system after installation of the monitoring system required in d) above:

- 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 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. total duration of excess emissions during the period, and if the total duration of excess emissions for the reporting period is greater than 1% of the total operating time for the period, then the report should also include the date, time, and duration of any/each individual time period of excess emissions and specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility;
 - xi. total duration of CMS downtime for the reporting period, and if the total period CMS downtime is greater than 5% of the total operating time of the period, then the report should also include the date, time, and duration of any downtime** of the continuous hydrogen sulfide monitoring system 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.

*** Downtime is time when the unit is operating and there is not sufficient valid data to calculate an hourly average per 40 CFR 60.13(h)(2).

NOTE: The above report is not necessary if the permittee chooses to comply with the Alternative Monitoring Plan (AMP) approved by U.S. EPA, unless a hydrogen sulfide CEM is used as part of the AMP on the flare.

(5) See 40 CFR Part 60, subpart Ja (40 CFR 60.100a-109a).

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. 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: NSPS limit from subpart J

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.

c. Emission Limitation: NSPS limit from subpart Ja

The permittee shall not burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H_2S) in excess of 162 ppmv determined hourly on a 3-hour rolling average basis

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 monitoring, recordkeeping and reporting requirements of 40 CFR 60, subpart Ja.

- (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 90 days after bringing this emissions unit into compliance with NSPS Subparts A and J, in accord with the provisions of c)(1) above.
 - b. The emission testing shall be conducted to demonstrate compliance with the visible emission limitation and the operational restrictions of c)(2)b.v. and vi. for velocity and heating value.
 - c. The following test method(s) shall be employed to demonstrate compliance with the visible emission limitation and the operational restrictions of c)(2)b.v and vi.:
 - i. Compliance with the visible emission limitations 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.
 - ii. The procedures of 40 CFR Part 63.11(b)(7)(i) shall be used to determine the exit velocity. In lieu of conducting the velocity test, the permittee may submit velocity calculations which demonstrate that the NSPS Hydrocarbon Flaring Device meets the performance specification required by c)(2)b.v. and vi.
 - iii. The procedures of 40 CFR Part 63.11(b)(6)(ii) shall be used to determine the heating value.
 - iv. 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 the Toledo Division of Environmental Services.
 - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. 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 the Toledo Division of Environmental Services' refusal to accept the results of the emission test(s).
 - f. Personnel from the Toledo Division of Environmental Services 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.

- g. 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 the Toledo Division of Environmental Services 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 the Toledo Division of Environmental Services.

NOTE: This testing was performed on 1/25/2011 for P008 and 1/25/2011 for P009.

- (3) If the permittee chooses to install the H₂S CEM in c)(1)c., then within 60 days after achieving the maximum production rate at which the affected facility will be operated, 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.

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) any time after the permanent shutdown of, and relinquishment of all operating permits for, such Refinery