



Environmental Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

2/7/2011

Certified Mail

Elaine Moore
Sun Company, Inc.
P.O. Box 920
Toledo, OH 43697-0920

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0448010246
Permit Number: P0107345
Permit Type: Initial Installation
County: Lucas

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

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio EPA Weekly Review and the local newspaper, Toledo Blade. A copy of the public notice and the draft permit are enclosed. 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. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049

and Toledo Department of Environmental Services
348 South Erie Street
Toledo, OH 43604

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Toledo Department of Environmental Services at (419)936-3015.

Sincerely,

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

Cc: U.S. EPA Region 5 - *Via E-Mail Notification*
TDES; Michigan; Indiana; Canada



Permit Strategy Write-Up

1. Check all that apply:

- Synthetic Minor Determination
Netting Determination

2. Source Description:

Sunoco, Inc. is a refinery located in Lucas County. This PTI is to incorporate the NSPS requirements of 40 CFR Part 60, subpart J for the refinery heaters and the Plant 9 flare as required by the 2006 Consent Decree. The permit will also incorporate the U.S. EPA approved alternative monitoring plan (AMP) that Sunoco requested for approval to meet the NSPS requirements of subparts A and J for hydrogen sulfide. The AMP was approved in a letter dated Dec. 21, 2010.

3. Facility Emissions and Attainment Status:

This facility is a Title V source for all pollutants (NOx, SO2, PE, PM10, VOC)

Lucas County is classified as attainment for all criteria pollutants.

Table with 3 columns: Significant Net Pollutant, Emission Increase Levels, and Attainment Status. Rows include PM2.5, PM10, SO2, VOC, NOx, and CO.

4. Source Emissions:

There were no increases in emissions for these emissions units. The original emission limits will remain the same. All sources in this permit are now an affected facility for NSPS 40 CFR Part 60, subparts A and J per the March 14, 2006 Consent Decree. The NSPS limits are established to make them federally enforceable in the PTI and later the Title V. The emission limit added from NSPS, subpart J, is for fuel gas combustion devices from 40 CFR 60.104(a)(1):

For the heaters and flare:

The permittee shall not burn in a fuel gas combustion device any fuel gas that contains hydrogen sulfide (H2S) in excess of 230 mg/dscm (0.10 gr/dscf).

The permit also incorporates the alternative monitoring plan (AMP) that Sunoco submitted to U.S. EPA on Oct. 25, 2010. U.S. EPA approved the AMP for the plant 9 flare system in a letter dated Dec. 21, 2010. The AMP allows Sunoco 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 monitoring techniques (depending on the stream) which includes: CEMS,



parametric monitoring and/or alternative monitoring system containing the components outlined in Appendix H of the 2006 Consent Decree.

5. Conclusion:

It is recommended that this permit be issued as soon as possible so the changes can be incorporated into the Title V renewal.

6. Please provide additional notes or comments as necessary:

** The numbers in the table below represent the PE and SO₂ emissions from the heaters based on maximum potential to emit. The long-term tpy limits are not listed in the permit. Only one emission unit has a short-term NOx emission limit represented in the NOx tpy number below. The NOx limit does not represent the emissions from heaters with no NOx limit. The flare has no emission limits other than NSPS for H₂S.

7. Total Permit Allowable Emissions Summary (for informational purposes only):

<u>Pollutant</u>	<u>Tons Per Year**</u>
PE	149.92 (no increase)
SO ₂	299.84 (no increase)
NOx	18.92 (no increase)

PUBLIC NOTICE
Issuance of Draft Air Pollution Permit-To-Install
Sun Company, Inc.

Issue Date: 2/7/2011
Permit Number: P0107345
Permit Type: Initial Installation
Permit Description: This PTI is not an initial installation. The permit is to incorporate the NSPS requirements of 40 CFR Part 60, subpart J for the existing refinery heaters and the Plant 9 flare as required by the 2006 Consent Decree.
Facility ID: 0448010246
Facility Location: Sun Company, Inc.
1819 Woodville Road,
Oregon, OH 43616
Facility Description: Petroleum Refineries

Scott J. Nally, Director of the Ohio Environmental Protection Agency, 50 West Town Street, Columbus Ohio, has issued a draft action of an air pollution control permit-to-install (PTI) for an air contaminant source at the location identified above on the date indicated. Installation of the air contaminant source may proceed upon final issuance of the PTI. Comments concerning this draft action, or a request for a public meeting, must be sent in writing no later than thirty (30) days from the date this notice is published. All comments, questions, requests for permit applications or other pertinent documentation, and correspondence concerning this action must be directed to Pam Barnhart at Toledo Department of Environmental Services, 348 South Erie Street, Toledo, OH 43604 or (419)936-3015. The permit can be downloaded from the Web page: www.epa.ohio.gov/dapc



DRAFT

**Division of Air Pollution Control
Permit-to-Install
for
Sun Company, Inc.**

Facility ID:	0448010246
Permit Number:	P0107345
Permit Type:	Initial Installation
Issued:	2/7/2011
Effective:	To be entered upon final issuance



Division of Air Pollution Control
Permit-to-Install
for
Sun Company, Inc.

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Authorization

Facility ID: 0448010246
Facility Description: Refinery
Application Number(s): A0040869
Permit Number: P0107345
Permit Description: This PTI is not an initial installation. The permit is to incorporate the NSPS requirements of 40 CFR Part 60, subpart J for the existing refinery heaters and the Plant 9 flare as required by the 2006 Consent Decree.
Permit Type: Initial Installation
Permit Fee: \$6,700.00 *DO NOT send payment at this time, subject to change before final issuance*
Issue Date: 2/7/2011
Effective Date: To be entered upon final issuance

This document constitutes issuance to:

Sun Company, Inc.
1819 Woodville Road
Oregon, OH 43616

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

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 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

Scott J. Nally
Director



Authorization (continued)

Permit Number: P0107345
Permit Description: This PTI is not an initial installation. The permit is to incorporate the NSPS requirements of 40 CFR Part 60, subpart J for the existing refinery heaters and the Plant 9 flare as required by the 2006 Consent Decree.

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

Emissions Unit ID: P008
Company Equipment ID: PL9 Flare
Superseded Permit Number:
General Permit Category and Type: Not Applicable

Group Name: B1-NSPS spJ, MACT DDDDD

Table with 2 columns: Emissions Unit ID and details (Company Equipment ID, Superseded Permit Number, General Permit Category and Type). Rows include units B006 through B019.

Effective Date: To be entered upon final issuance

Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	B021
Company Equipment ID:	H-6303
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	B022
Company Equipment ID:	H-6304
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	B026
Company Equipment ID:	H-9201
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	B027
Company Equipment ID:	H-9202
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	B028
Company Equipment ID:	H-9203
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	B029
Company Equipment ID:	H-9251
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	B030
Company Equipment ID:	H-9252A
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	B031
Company Equipment ID:	H-9252B
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	B032
Company Equipment ID:	H-9302
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	B033
Company Equipment ID:	H-9301
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	B034
Company Equipment ID:	H-9303
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	B035
Company Equipment ID:	H-9304
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	B036
Company Equipment ID:	H-9305
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	B052
Company Equipment ID:	H-512
Superseded Permit Number:	

Draft Permit-to-Install

Sun Company, Inc.

Permit Number: P0107345

Facility ID: 0448010246

Effective Date: To be entered upon final issuance

General Permit Category and Type:	Not Applicable
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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) 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 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 (i.e., postmarked) 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) The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.
- b) 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.
- c) 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:

Effective Date: To be entered upon final issuance

- (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.
- d) 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 (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.)

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).

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 party 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 Ohio EPA's "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying 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.

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

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

13. Construction Compliance Certification

The applicant shall identify the following dates in the online 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 (i.e., postmarked), 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.

B. Facility-Wide Terms and Conditions

Draft Permit-to-Install

Sun Company, Inc.

Permit Number: P0107345

Facility ID: 0448010246

Effective Date: To be entered upon final issuance

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) The following emissions units contained in this permit are subject to 40 CFR Part 63, Subparts A and H: 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.

C. Emissions Unit Terms and Conditions

Effective Date: To be entered upon final issuance

1. P008, PL9 Flare

Operations, Property and/or Equipment Description:

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)	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	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.

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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	as a control device for equipment subject to Subpart H]	
d.	40 CFR Part 61, Subpart J (40 CFR 61.110-112) [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 systems.]	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.
e.	OAC rule 3745-21-07(J)(3)	See b)(2)b.
f.	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)(3)

(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. The visible emission limitation specified by this rule is equivalent to that specified by 40 CFR Part 63.11, Subpart A.

On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was 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 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

[b)(1)e. and b)(2)b.]

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: 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.

(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) See 40 CFR Part 63, Subpart A (40 CFR 63.11).
- (4) See 40 CFR Part 60, Subpart J (40 CFR 60.100-109).

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.

The permittee shall record all periods during which there was no pilot flame or the flare was inoperable.

- (2) 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.
- (3) [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.
- (4) [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

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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.

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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.

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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.

(5) See 40 CFR Part 60, Subpart J (40 CFR 60.100-109).

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 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.

(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.

(4) [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

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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) See 40 CFR Part 60, Subpart J (40 CFR 60.100-109).

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 (H₂S) in excess of 230 mg/dscm (0.10 gr/dscf).

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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.

- (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, 1.740×10^{-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 "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]

Draft Permit-to-Install

Sun Company, Inc.

Permit Number: P0107345

Facility ID: 0448010246

Effective Date: To be entered upon final issuance

g) Miscellaneous Requirements

(1) None.

2. **Emissions Unit Group - B1-NSPS spJ, MACT DDDDD: B006, B008, B009, B010, B014, B015, B016, B017, B018, B019, B021, B022, B026, B027, B028, B029, B030, B031, B032, B033, B034, B035, B036, B052,**

EU ID	Operations, Property and/or Equipment Description
B006	50 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	50 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	50 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/hr Selas Corp Heater [H604] with low NOx burners, fired with refinery fuel gas (existing source adding low-NOx burners)
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.
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	Alcorn Heater [H9203] Installation of new burners to upgrade from 27 mmBtu/hr to 32 mmBtu/hr
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/hr 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.

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EU ID	Operations, Property and/or Equipment Description
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 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)	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)b., b)(2)c. and b)(2)d. [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

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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		mmBtu of actual heat input
d.	OAC rule 3745-18-54(O)(1)	0.04 pound of sulfur dioxide (SO ₂) per mmBtu of actual heat input See b)(2)e.
e.	40 CFR Part 63, Subpart DDDDD	see b)(2)a.
f.	<i>Applicable to emission unit B018:</i> OAC rule 3745-31-05(D) (PTI 04-01421 issued 12/20/2005)	0.04 pound of nitrogen oxides (NO _x) per mmBtu of actual heat input

(2) Additional Terms and Conditions

- a. This emissions unit is subject to a case-by-case MACT determination pursuant to section 112(j) of the Clean Air ACT (CAA) due to the June 8, 2007 D.C. Circuit Court of Appeals decision to vacate the Boiler MACT (40 CFR Part 63, Subpart DDDDD).

If notified by the Ohio EPA or U.S. EPA, the permittee shall submit an application for a revision to this permit to install that meets the requirements of 40 CFR 63.52(a)(2) and 63.53(a) pertaining to case-by-case MACT determinations. The 30 day clock for submittal of a 112(j) application does not begin until such notification is made by Ohio EPA or U.S. EPA.

- b. [40 CFR 60.104(a)(1)]
 The permittee shall not burn in any fuel gas combustion device any fuel gas that contains 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
- c. 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]

- d. 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]

- e. For emissions unit B010 only, the emission limitation specified by this rule is more stringent than the emission limitation established pursuant to OAC rule 3745-18-54(O)(5).

c) Operational Restrictions

- (1) The permittee shall burn only refinery fuel gas in this emissions unit.
- (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 SO₂ emission limitation of 0.04 pound of SO₂ per mmBtu of actual heat input.

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.
- (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.
- (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.
- (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.
- (5) The permittee shall maintain records of the average H₂S content (in ppmv) for the refinery fuel gas for each day, and which hydrogen sulfide continuous emissions monitoring system (H₂S CEMS) was used to obtain the data (i.e., from which of the following emissions units: B048, B050, B051).

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- (6) The permittee shall maintain daily records (Monday through Friday) of the average SO₂ emission rate for the refinery fuel gas. The SO₂ emission rate shall be calculated as follows:

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

Where:

ERG = average SO₂ emission rate, in pounds SO₂ per mmBtu for each day;

14.696 = standard pressure, psia;

S = daily average H₂S content of refinery fuel gas, ppmv;

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

1.998 = lb of SO₂ per lb sulfur;

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

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

520 = standard temperature, °R

- (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 on an instantaneous (one-minute) basis;
- 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).

[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.
- (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.
- (3) The permittee shall submit quarterly deviation (excursion) reports that identify each average SO₂ emission rate, as calculated in d) above, that exceeded the SO₂ emission limitation of 0.04 pound of SO₂ per mmBtu of actual heat input for the burning of refinery fuel gas.
- (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).

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- 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 hydrogen sulfide emissions for the calendar quarter (tons);
 - 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)(xi) and (xii).

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).

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 SO₂ 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 (H₂S) 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

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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 (NO_x) 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.

g) Miscellaneous Requirements

(1) None.