



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

9/8/2016

Bill Rupert
 BP-Husky Refining LLC
 4001 Cedar Point Road
 Oregon, OH 43616

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
 Facility ID: 0448020007
 Permit Number: P0120592
 Permit Type: Administrative 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**
- **What should you do if you notice a spill or environmental emergency?**

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

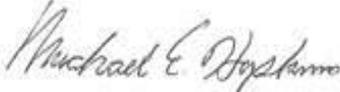
This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

What should you do if you notice a spill or environmental emergency?

Any spill or environmental emergency which may endanger human health or the environment should be reported to the Emergency Response 24-HOUR EMERGENCY SPILL HOTLINE toll-free at (800) 282-9378. Report non-emergency complaints to the appropriate district office or local air agency.

If you have any questions regarding your permit, 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
BP-Husky Refining LLC**

Facility ID:	0448020007
Permit Number:	P0120592
Permit Type:	Administrative Modification
Issued:	9/8/2016
Effective:	9/8/2016



Division of Air Pollution Control
Permit-to-Install
for
BP-Husky Refining LLC

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Final Permit-to-Install
BP-Husky Refining LLC
Permit Number: P0120592
Facility ID: 0448020007
Effective Date: 9/8/2016

Authorization

Facility ID: 0448020007
Facility Description: Toledo Refinery
Application Number(s): A0054808
Permit Number: P0120592
Permit Description: Administrative modification for Reformer 3 to correct VOC emissions limit to reflect stack test results.
Permit Type: Administrative Modification
Permit Fee: \$625.00
Issue Date: 9/8/2016
Effective Date: 9/8/2016

This document constitutes issuance to:

BP-Husky Refining LLC
4001 Cedar Point Road
P.O. Box 696
Oregon, OH 43697

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

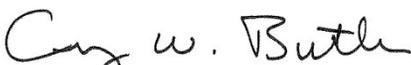
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

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



Final Permit-to-Install
BP-Husky Refining LLC
Permit Number: P0120592
Facility ID: 0448020007
Effective Date:9/8/2016

Authorization (continued)

Permit Number: P0120592

Permit Description: Administrative modification for Reformer 3 to correct VOC emissions limit to reflect stack test results.

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

Emissions Unit ID:	P803
Company Equipment ID:	Reformer 3 Process U
Superseded Permit Number:	P0115518
General Permit Category and Type:	Not Applicable



Final Permit-to-Install
BP-Husky Refining LLC
Permit Number: P0120592
Facility ID: 0448020007
Effective Date:9/8/2016

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
BP-Husky Refining LLC
Permit Number: P0120592
Facility ID: 0448020007
Effective Date:9/8/2016

B. Facility-Wide Terms and Conditions



Final Permit-to-Install
BP-Husky Refining LLC
Permit Number: P0120592
Facility ID: 0448020007
Effective Date: 9/8/2016

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 unit contained in this permit is subject to 40 CFR Part 60 Subpart GGGa and NNN: P803. 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.gov> or by contacting the appropriate Ohio EPA district or local air agency.
3. The following emission unit contained in this permit is subject to 40 CFR Part 63 Subpart CC and UUU: P803. The complete NSPS and 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.gov> or by contacting the appropriate Ohio EPA district or local air agency.



Final Permit-to-Install
BP-Husky Refining LLC
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C. Emissions Unit Terms and Conditions

1. P803, Reformer 3 Process Unit

Operations, Property and/or Equipment Description:

Continuous Catalytic Regeneration Reformer 3 with regeneration vent controlled by the Chlorsorb™ System and Catalytic Converter

- 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) b)(1)c.
- 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.	ORC 3704.03 (T)	The combined Volatile Organic Compound (VOC) emissions from fugitive equipment leaks and from the regenerator vent shall not exceed 1.91 tons per month averaged over a twelve-month rolling period.
b.	OAC rule 3745-31-05(A)(3), June 30, 2008	Carbon monoxide (CO) emissions shall not exceed 0.4 tons per month averaged over a twelve-month rolling period. See b)(2)i.
c.	OAC rule 3745-31-05(A)(3)(a)(ii), June 30, 2008	See b)(2)h.
d.	40 CFR Part 60 Subpart Ja	See b)(2)c.
e.	OAC rule 3745-21-07(B)	See b)(2)j.
f.	OAV rule 3745-21-08(B)	See b)(2)i.
g.	40 CFR Part 63, Subpart UUU [In accordance with 40 CFR 63.1566(a) and 63.1567(a), this emissions unit is a Catalytic Reforming unit subject to the emissions limitations/control measures specified in this section]	See b)(2)a. and b)(2)b.
h.	40 CFR Part 63, Subpart A	40 CFR Part 63, Subpart A provides applicability provisions, definitions, and

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		other general provisions that are pertinent to emissions units affected by 40 CFR Part 63. Table 6 to Subpart CC of 40 CFR Part 63 – General Provisions Applicability to Subpart CC and Table 44 to 40 CFR Part 63 Subpart UUU show which parts of the General Provisions in 40 CFR63.1-15 apply.
i.	40 CFR Part 63, Subpart CC	See b)(2)d.
j.	40 CFR Part 60, Subpart GGGa	See b)(2)f.
k.	40 CFR Part 60, Subpart NNN	See b)(2)g.
l.	OAC rule 3745-21-09(T)	See b)(2)e.

(2) Additional Terms and Conditions

a. The permittee shall comply with the emissions limits in 40 CFR 63 Subpart UUU.

Subpart UUU Citation	Brief Description of Operational Requirements
63.1566(a)(1)(i)	Meet each emission limitation in Table 15 of Subpart UUU that applies to control organic HAPs during initial catalyst depressuring and catalyst purging operations. Note: The Reformer 3 vents all emissions back to the process during initial depressurization/purge steps, and therefore there are no applicable process vents and no organic HAP emissions associated with these steps that would be subject to Table 15, 16,17, 18, 20, and 21.
63.1567(a)(1)	Meet each emission limitation in Table 22 of Subpart UUU that applies to you. These emission limitations apply to emissions from catalytic reforming unit process vents associated with the coke burn-off and catalyst rejuvenation operations during coke burn-off and catalyst regeneration. Table 22 item 3: During coke burn-off and catalyst regeneration, reduce uncontrolled emissions of HCl by 97 percent by weight or to a concentration of 10 ppmv (dry basis), corrected to 3 percent oxygen from the process vents associated with the coke burn-off and catalyst rejuvenation operations.

b. Per 40 CFR 63.1566(a)(3) and (4), the emission limitations in Tables 15 of 40 CFR 63 Subpart UUU do not apply to the coke burn-off, catalyst rejuvenation, reduction or activation vents, or to the control systems used for these vents. The emission limitations in Tables 15 and 16 of this subpart do not apply to emissions from process vents during depressuring and purging operations when the reactor vent pressure is 5 pounds per square inch gauge (psig) or less.

- c. This new unit will have new emergency relief vent piping and other connections to the refinery flare system. These connections may trigger the applicability of NSPS Subpart Ja to the refinery flares based on the definition of flare modification in the 40 CFR 60 Subpart Ja issued April 30, 2008. However, on September 26, 2008, U.S. EPA stayed the effective date of some of the provisions of the new rule including the language in 40 CFR 60.100a(c) and 60.101a which specifies that any piping connection to a flare header is considered a modification of the flare for the purpose of determining NSPS Ja applicability. On December 22, 2008, that stay was extended until further notice to allow EPA to reach a final decision on the issues (see 73 FR 78549 – 78552). If applicable, the permittee shall comply with the flare requirements of the final 40 CFR 60 Subpart Ja upon its promulgation in the Federal Register.
- d. The permittee subject to the provisions of 40 CFR 63, Subpart CC shall comply with the requirements in 40 CFR Part 63, Subpart CC for applicable equipment leak provisions referencing 40 CFR Part 60, Subpart VV and §63.648(b) except as provided in §63.648(a)(1), (a)(2), and §63.648(c) through (i).
- e. Consistent with the U.S.EPA streamlining policy, the permittee may elect to demonstrate compliance with OAC rule 3745-21-09(T) by demonstrating compliance with equipment leak standards in 40 CFR Part 63, Subpart CC for both equipment in organic HAP service and not in organic HAP service. The MACT level monitoring of 40 CFR Part 63, Subpart CC is generally more stringent than the LDAR requirements of OAC 3745-21-09(T).
- f. The permittee shall comply with the requirements in 40 CFR Part 60, Subpart GGGa for applicable equipment leak provisions referencing 40 CFR Part 60, Subpart VVa. Per 40 CFR 63.640(p), equipment leaks subject to 40 CFR 63 Subpart CC provision, and also subject to the provisions of 40 CFR parts 60 are required to comply only with the provisions of 40 CFR 63 Subpart CC.
- g. The permittee shall comply with the requirements in 40 CFR Part 60, Subpart NNN as they apply to the debutanizer tower unless US EPA approves alternative requirements. The permittee has indicated that a request to use an alternative monitoring plan will be submitted to U.S. EPA for the Reformer 3 debutanizer tower.
- h. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

[OAC rule 3745-31-05(A)(3)(a)(ii)]
- i. This Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05-(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

[OAC rule 3745-31-05(A)(3)]

c) Operational Restrictions

(1) 40 CFR Part 63, Subpart UUU.

Subpart UUU Citation	Brief Description of Operational Requirements
63.1567(a)(2)	Meet each site-specific operating limit in Table 23 of this subpart that applies to you. These operating limits apply during coke burn-off and catalyst rejuvenation.

(2) See 40 CFR Part 63, Subpart A.

Subpart A Citations	Brief Description Operational Requirements
40 CFR 63.1577	Table 44 of 40 CFR 63 Subpart UUU shows which parts of the General Provisions in §§ 63.1 through 63.15 apply
40 CFR 63 Subpart CC	Table 6 of 40 CFR Part 63, Subpart CC specifies the provisions of 40 CFR Part 63, Subpart A that apply and those that do not apply to emissions units subject to Subpart CC of 40 CFR Part 63.

(3) 40 CFR Part 63, Subpart CC.

Subpart CC Citations	Brief Description Operational Requirements
63.648(f)	Reciprocating pumps in light liquid service are exempt from §§63.163 and 60.482 if recasting the distance piece or reciprocating pump replacement is required.
63.648(g)	Compressors in hydrogen service are exempt from the requirements of paragraphs 63.648(a) and (c), if the permittee demonstrates that a compressor is in hydrogen service. (see 40 CFR 63.648(g)(2) for hydrogen service requirements)
63.648(i)	Reciprocating compressors are exempt from seal requirements if recasting the distance piece or compressor replacement is required.

(4) 40 CFR Part 60 GGGa. (compliance demonstrated by Subpart CC LDAR requirements per 40 CFR 63.640(p))

(5) 40 CFR Part 60, Subpart NNN.

Subpart NNN Citations	Brief Description of Operational Requirements
60.662	Standards

d) Monitoring and/or Recordkeeping Requirements

(1) See 40 CFR Part 63, Subpart UUU.

Subpart UUU Citations	Brief Description of Monitoring and/or Record keeping Requirements
63.1566(a)(5), 63.1567(a)(3), 63.1566(c)(2)	Prepare an operation, maintenance, and monitoring plan according to the requirements in §63.1574(f) and operate at all times according to the plan.
63.1567(b)(1)63.1566(a)(5), 63.1567(a)(3), 63.1566(c)(2)	Install, operate, and maintain a continuous monitoring system(s) according to the requirements in §63.1572 and Table 24 Subpart UUU. Prepare an operation, maintenance, and monitoring plan according to the requirements in §63.1574(f) and operate at all times according to the plan.
63.1567(c)(1)63.1567(b)(1)	Demonstrate continuous compliance with Tables 22 and 23 of Subpart UUU according to the methods specified in Tables 27 and 28 of Subpart UUU. Install, operate, and maintain a continuous monitoring system(s) according to the requirements in §63.1572 and Table 24 Subpart UUU.
63.1567(c)(2)63.1567(c)(1)	Demonstrate continuous compliance with 63.1537(a)(3) by maintaining records to document compliance with the procedures in the operation, maintenance and monitoring plan. Demonstrate continuous compliance with Tables 22 and 23 of Subpart UUU according to the methods specified in Tables 27 and 28 of Subpart UUU.
63.1570(a)63.1567(c)(2)	Comply with all of the non-opacity standards in this subpart during the times specified in §63.6(f)(1). Demonstrate continuous compliance with 63.1537(a)(3) by maintaining records to document compliance with the procedures in the operation, maintenance and monitoring plan.
63.1570(c)63.1570(a)	Operate and maintain the affected source, including air pollution control and monitoring equipment, according to the provisions in §63.6(e)(1)(i). Comply with all of the non-opacity standards in this subpart during the times specified in §63.6(f)(1).
63.1570(d)63.1570(c)	Develop a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in §63.6(e)(3). Operate and maintain the affected source, including air pollution control and monitoring equipment, according to the provisions in §63.6(e)(1)(i).
63.1570(g)63.1570(d)	Consistent with §§63.6(e) and 63.7(e)(1), deviations that occur during a period of SSM are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with §63.6(e)(1). Develop a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in §63.6(e)(3).
63.1572(c)63.1570(g)	Install, operate, and maintain each continuous parameter monitoring system according to the requirements in paragraphs 63.1572(c)(1) through (5). Consistent with §§63.6(e) and 63.7(e)(1), deviations that

Subpart UUU Citations	Brief Description of Monitoring and/or Record keeping Requirements
	occur during a period of SSM are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with §63.6(e)(1).
63.1572(d)63.1572(c)	Monitor and collect data according to the requirements in paragraphs 63.1572(d)(1) and (2) of this section. Install, operate, and maintain each continuous parameter monitoring system according to the requirements in paragraphs 63.1572(c)(1) through (5).
63.1574(f)(2)63.1572(d)	Each operation, maintenance, and monitoring plan must include, at a minimum, the information outlined in 63.1574(f)(2). Monitor and collect data according to the requirements in paragraphs 63.1572(d)(1) and (2) of this section.
63.1576(a)63.1574(f)(2)	Keep the records specified 63.1576(a)(1) through (3). Each operation, maintenance, and monitoring plan must include, at a minimum, the information outlined in 63.1574(f)(2).
63.1576(d)63.1576(a)	Keep records required by Tables 20, 21, 27 and 28 of 40 CFR 63 Subpart UUU as applicable. Keep the records specified 63.1576(a)(1) through (3).
63.1576(e)63.1576(d)	Maintain a current copy of the operation, maintenance, and monitoring plan onsite and available for inspection. Keep records to show continuous compliance with the procedures this plan. Keep records required by Tables 20, 21, 27 and 28 of 40 CFR 63 Subpart UUU as applicable.
63.1576(f)63.1576(e)	Keep records of any changes that affect emission control system performance for this source. Maintain a current copy of the operation, maintenance, and monitoring plan onsite and available for inspection. Keep records to show continuous compliance with the procedures this plan.
63.1576(g)63.1576(f)	Records must be maintained in a form suitable and readily available for expeditious review according to §63.10(b)(1). Keep records of any changes that affect emission control system performance for this source.
63.1576(h)63.1576(g)	Keep each record for 5 years following the date of when each record is created as specified in §63.10(b)(1). Records must be maintained in a form suitable and readily available for expeditious review according to §63.10(b)(1).
63.1576(i)63.1576(h)	Maintain each record on site for at least 2 years after the date the record was created according to §63.10(b)(1). You can keep the records offsite for the remaining 3 years. Keep each record for 5 years following the date of when each record is created as specified in §63.10(b)(1)
63.1576(i)	Maintain each record on site for at least 2 years after the date the

Subpart UUU Citations	Brief Description of Monitoring and/or Record keeping Requirements
	record was created according to §63.10(b)(1). You can keep the records offsite for the remaining 3 years.

(2) 40 CFR Part 63, Subpart A.

Subpart A Citations	Brief Description of Monitoring and/or Record keeping Requirements
40 CFR 63.1577	Table 44 of 40 CFR 63 Subpart UUU shows which parts of the General Provisions in §§ 63.1 through 63.15 apply
40 CFR 63 Subpart CC	Table 6 of 40 CFR Part 63, Subpart CC specifies the provisions of 40 CFR Part 63, Subpart A that apply and those that do not apply to emissions units subject to Subpart CC of 40 CFR Part 63.

(3) 40 CFR Part 63, Subpart CC.

Subpart CC Citations	Brief Description of Monitoring and/or Record keeping Requirements
60.482-1	Standards: General
60.482-2	Standards: Pumps in light liquid service
60.482-3	Standards: Compressors
60.482-4	Standards: Pressure relief devices in gas/vapor service.
60.482-5	Standards: Sampling connection systems.
60.482-6	Standards: Open-ended valves or lines.
60.482-7	Standards: Valves in gas/vapor service and in light liquid service.
60.482-8	Standards: Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors.
60.482-9	Standards: Delay of repair.
60.482-10	Standards: Closed vent systems and control devices.
60.483-1	Alternative standards for valves--allowable percentage of valves leaking.
60.483-2	Alternative standards for valves--skip period leak detection and repair.
60.486	Recordkeeping requirements.

(4) 40 CFR Part 60 Subpart GGGa. (compliance demonstrated by Subpart CC LDAR requirements per 40 CFR 63.640(p))

(5) 40 CFR Part 60, Subpart NNN

Subpart NNN Citations	Brief Description of Monitoring and/or Record keeping Requirements
60.663	Monitoring of emissions and standards
60.663(f)	The permittee can request alternative controls by providing the Administrator information describing the operation of the control device or recovery device and the process parameter(s) which would indicate proper operation and maintenance of the device.
60.665	Reporting and Record keeping requirements

e) Reporting Requirements

- (1) See 40 CFR Part 63, Subpart UUU.

Subpart UUU Citations	Brief Description of Reporting Requirements
63.1566(b)(7), 63.1567(b)(6)	Demonstrate initial compliance with 63.1566(a)(3), and (a)(5) by submitting the operation, maintenance, and monitoring plan to your permitting authority as part of your Notification of Compliance Status.
63.1566(b)(8), 63.1567(b)(7)	Submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.1574.
63.1570(f)	Report each deviation from an emission limitation, work practice standard, and operating limit per §63.1575. This includes periods of startup, shutdown, and malfunction.
63.1574(a)	Except as allowed in this paragraph, you must submit all of the notifications in §§63.6(h), 63.7(b) and (c), 63.8(e), 63.8(f)(4), 63.8(f)(6), and 63.9(b) through (h) that apply by the dates specified.
63.1574(d)	Include the information in Table 42 of Subpart UUU in your notification of compliance status.
63.1574(f)(1)	Submit the operation, maintenance, and monitoring plan to TDES for review and approval along with your notification of compliance status. Submit any changes to TDES for review and approval and comply with the plan until the change is approved.
63.1575(a)	Submit each report in Table 43 of Subpart UUU as applicable.
63.1575(b)	Unless the Administrator has approved a different schedule, submit each report by the date in Table 43 of Subpart UUU and according to the requirements in 63.1575(b)(1) through (5).
63.1575(c)	The compliance report must contain the information required in 63.1575(c)(1) through (4).
63.1575(d)	For each deviation that occurs where you are not using a continuous emission monitoring system to comply with a standard in Subpart UUU, the compliance report must contain the information in 63.1575(c)(1) through (3) and the information in 63.1575(d)(1) through (3).

Subpart UUU Citations	Brief Description of Reporting Requirements
63.1575(f)	Include the information required in 63.1575 (f)(1) through (2) in each compliance report, if applicable.
63.1575(h)	The reporting requirements in 63.1575 (h)(1) and (2) apply to startups, shutdowns, and malfunctions.

(2) 40 CFR Part 63, Subpart A.

Subpart A Citations	Brief Description of Reporting Requirements
40 CFR 63.1577	Table 44 of 40 CFR 63 Subpart UUU shows which parts of the General Provisions in §§ 63.1 through 63.15 apply
40 CFR 63 Subpart CC	Table 6 of 40 CFR Part 63, Subpart CC specifies the provisions of 40 CFR Part 63, Subpart A that apply and those that do not apply to emissions units subject to Subpart CC of 40 CFR Part 63.

(3) 40 CFR Part 63, Subpart CC.

Subpart CC Citations	Brief Description of Reporting Requirements
60.487	Reporting Requirements
63.654(d)	Reporting requirements

(4) 40 CFR Part 60 Subpart GGGa. (compliance demonstrated by Subpart CC LDAR requirements per 40 CFR 63.640(p))

(5) 40 CFR Part 60, Subpart NNN

Subpart NNN Citations	Brief Description of Reporting Requirements
60.665	Reporting and Record keeping requirements

f) Testing Requirements

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

a. Emission Limitation:

The combined VOC emission from fugitive equipment leaks and the regeneration vent stack shall not exceed 1.91 tons per month averaged over a twelve-month rolling period.

Applicable Compliance Method:

This emission limitation was developed as the sum of the annual VOC emissions from fugitive equipment leaks and the regenerator vent divided by twelve months per year.

This annual VOC emissions from fugitive equipment leaks were calculated based on the following method. The percent of the leaking vapor and light liquid valves and pumps are based on from Toledo Refinery's past experience. The leaking components were assumed to leak at 10,000 ppm. Emissions are calculated based on EPA correlation equations (Table 2-10 of the U.S. EPA Protocol document for Equipment Leaks). Non-leakers are assumed to emit at the EPA default-zero leak rate (Table 2-12 of the U.S. EPA Protocol document for Equipment Leaks). Heavy liquid components are estimated based on average HL factors from API Publication 337, August 1996. Pressure relief valves vent to the flare and the average emission factors are reduced by 98%. The emission factors for hydrogen compressors are multiplied by 10% to estimate the VOC emissions from hydrogen compressors assuming the hydrogen compressors have a maximum of 10% VOC.

The reformer regenerator vent emissions were determined by the lb/hr VOC emission factor supplied by the permittee based on stack testing (2.78 pounds per hour) multiplied by the maximum annual hour of operation (8760 hrs/yr). The sum of the VOC emissions from fugitive equipment leaks and the regenerator vent (10.79 tons/yr + 12.18 tons/yr) was divided by twelve months per year to determine the annual allowable emissions. If required the permittee shall determine the VOC emissions from the regenerator vent using the methods and procedures specified in OAC rule 3745-21-10(C). Alternative U.S. EPA approved methods may be used with prior approval from Ohio EPA.

b. Emission Limitation:

CO emission from regeneration vent stack shall not exceed 0.4 ton per month averaged over a twelve-month rolling period.

Applicable Compliance Method:

This emission limitation was developed by multiplying the vender supplied CO emission factor (1.1 pounds/hr) by the maximum annual hours of operation (8760 hrs/yr) and divided by twelve months per year.

If required, the permittee shall demonstrate compliance using the methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved methods may be used with prior approval from Ohio EPA.

(2) See 40 CFR Part 63 Subpart UUU.

Subpart UUU Citations	Brief Description of Testing Requirements
63.1567(b)(2)	Conduct each performance test for a catalytic reforming unit according to the requirements in §63.1571 and under the conditions specified in Table 25 of Subpart UUU.

Subpart UUU Citations	Brief Description of Testing Requirements
63.1567(b)(3)	Establish each site-specific operating limit in Table 23 of Subpart UUU that applies according to the procedures in Table 25 of Subpart UUU respectively.
63.1567(b)(4)	Use the equations in 63.1567 (b)(4)(i) through (iv) to determine initial compliance with the emission limitations
63.1567(b)(5)	Demonstrate initial compliance with each emission limitation that applies according to Table 26 Subpart UUU.
63.1571(a)	Conduct performance tests and report the results by no later than 150 days after the compliance date specified in §63.1563 and according to the provisions in §63.7(a)(2). If you are required to do a performance evaluation or test for a semi-regenerative catalytic reforming unit catalyst regenerator vent, you may do them at the first regeneration cycle after your compliance date and report the results in a follow-up Notification of Compliance Status report due no later than 150 days after the test.
63.1571(b)(1)	Conduct each performance test according to the requirements in §63.7(e)(1)
63.1571(b)(2)	Conduct three separate test runs for each performance test as specified in §63.7(e)(3). Each test run must last at least 1 hour.
63.1571(b)(3)	Conduct each performance evaluation according to the requirements in §63.8(e).
63.1571(b)(4)	Do not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §63.7(e)(1).
63.1571(b)(5)	Calculate the average emission rate for the performance test by calculating the emission rate for each individual test run in the units of the applicable emission limitation using Equation 2, 5, or 8 of §63.1564, and determining the arithmetic average of the calculated emission rates.

(3) 40 CFR Part 63, Subpart A

Subpart A Citations	Brief Description of Testing Requirements
40 CFR 63.1577	Table 44 of 40 CFR 63 Subpart UUU shows which parts of the General Provisions in §§ 63.1 through 63.15 apply
40 CFR 63 Subpart CC	Table 6 of 40 CFR Part 63, Subpart CC specifies the provisions of 40 CFR Part 63, Subpart A that apply and those that do not apply to emissions units subject to Subpart CC of 40 CFR Part 63.

- (4) See 40 CFR Part 63, Subpart CC.

Subpart CC Citations	Brief Description of Testing Requirements
60.485	Subpart VV test methods and procedures

- (5) See 40 CFR Part 60, Subpart GGGa (compliance demonstrated by Subpart CC LDAR requirements per 40 CFR 63.640(p))

- (6) See 40 CFR Part 60, Subpart NNN

Subpart NNN Citations	Brief Description of Testing Requirements
60.664	Testing Methods and Procedures

g) Miscellaneous Requirements

- (1) None.