State of Ohio Environmental Protection Agency

STREET ADDRESS:
Lazarus Government Center
50 W. Town St., Suite 700
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-3184
www.epa.state.oh.us

MAILING ADDRESS:
P.O. Box 1049
Columbus, OH 43216-1049

Certified Mail

7/30/2009

No	TOXIC REVIEW
No	PSD
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No	CEMS
No	MACT
No	NSPS
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No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED

Warren Wright
Heartland Refinery Group. LLC
4021 East Fifth Avenue
Columbus, OH 43219

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 0125043205
Permit Number: P0105213
Permit Type: Administrative Modification
County: Franklin

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install and Operate ("PTIO") which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully.

Ohio EPA maintains a document entitled "Frequently Asked Questions about the PTIO". The document can be downloaded from the DAPC Web page, www.epa.state.oh.us/dapc, from the "Permits" link. This document contains additional information related to your permit, such as what activities are covered under the PTIO, who has enforcement authority over the permit and Ohio EPA's authorization to inspect your facility and records. Please contact the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469 if you need assistance.

The issuance of this PTIO is a final action of the Director and may be appealed to the Environmental Review Appeals Commission ("ERAC") under Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and describe the action complained of and the grounds for the appeal. The appeal must be filed with the ERAC within thirty (30) days after notice of the Director's action. A filing fee of $70.00 must be submitted to the ERAC with the appeal, although the ERAC, has discretion to reduce the amount of the filing fee if you can demonstrate (by affidavit) that payment of the full amount of the fee would cause extreme hardship. If you file an appeal of this action, you must notify Ohio EPA of the filing of the appeal (by providing a copy to the Director) within three (3) days of filing your appeal with the ERAC. Ohio EPA requests that a copy of the appeal also be provided to the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the ERAC at the following address:

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

If you have any questions regarding this permit, please contact the Ohio EPA DAPC, Central District Office. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page www.epa.state.oh.us/dapc.

Sincerely,

Michael W. Ahern

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

Cc: Ohio EPA-CDO

State of Ohio Environmental Protection Agency
Division of Air Pollution Control

FINAL

Air Pollution Permit-to-Install and Operate
for
Heartland Refinery Group. LLC

Facility ID: 0125043205
Permit Number: P0105213
Permit Type: Administrative Modification
Issued: 7/30/2009
Effective: 7/30/2009
Expiration: 7/16/2013

State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Air Pollution Permit-to-Install and Operate
for
Heartland Refinery Group. LLC

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Authorization

Facility ID: 0125043205
Application Number(s): M0000521
Permit Number: P0105213
Permit Description: Administrative Modification to 01-12184
Permit Type: Administrative Modification
Permit Fee: $700.00
Issue Date: 7/30/2009
Effective Date: 7/30/2009
Expiration Date: 7/16/2013
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Heartland Refinery Group. LLC
4021 East Fifth Avenue
Columbus, OH 43219

of a Permit-to-Install and Operate 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:

Ohio EPA DAPC, Central District Office
50 West Town Street, 6th Floor
P.O. Box 1049
Columbus, OH 43216-1049
(614)728-3778

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (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 described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski
Director

Authorization (continued)

Permit Number: P0105213
Permit Description: Administrative Modification to 01-12184

Permits for the following emissions unit(s) or groups of emissions units are in this document as indicated below:

Emissions Unit ID:	**B001**
Company Equipment ID:	PESCO Hot Oil Heater (PHOH)
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P001**
Company Equipment ID:	DLOR
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P005**
Company Equipment ID:	CEP
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

Group Name: LUWA Group

Emissions Unit ID:	**P002**
Company Equipment ID:	LUWA 1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P003**
Company Equipment ID:	LUWA 2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P004**
Company Equipment ID:	LUWA 3
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

A. Standard Terms and Conditions

1. **What does this permit-to-install and operate ("PTIO") allow me to do?**

   This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

2. **Who is responsible for complying with this permit?**

   The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

   The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

3. **What records must I keep under this permit?**

   You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

4. **What are my permit fees and when do I pay them?**

   There are two fees associated with permitted air contaminant sources in Ohio:

   - PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

     You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

   - Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

5. **When does my PTIO expire, and when do I need to submit my renewal application?**

   This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is

very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

6. What happens to this permit if my project is delayed or I do not install or modify my source?

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

7. What reports must I submit under this permit?

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.

10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Ohio EPA DAPC, Central District Office in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

12. What happens if one or more emissions units operated under this permit is/are shut down permanently?

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means 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.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emission unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

13. Can I transfer this permit to a new owner or operator?

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the

change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

15. What happens if a portion of this permit is determined to be invalid?

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.

B. Facility-Wide Terms and Conditions

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

   a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

      (1) None.

   b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

      (1) None.

C. Emissions Unit Terms and Conditions

1. B001, PESCO Hot Oil Heater (PHOH)

Operations, Property and/or Equipment Description:

PHOH - PESCO Front-End Hot Oil Heater

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. b)(1)(j), b)(2)(e), d)(7), d)(8), d)(9), d)(10), and e)(3)

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(1)(b), c)(1), d)(1)(a), d)(1)(b), d)(1)(c), and e)(1)(a)

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Emissions of nitrogen oxides (NO_x) from the combustion of Light Ends Fuel Oil (LEFO) (as defined in (c)(4)) in this emissions unit shall not exceed 2.80 pounds per hour and 8.1 tons per year. Emissions of nitrogen oxides (NO_x) from the combustion of natural gas in this emissions unit shall not exceed 1.9 pounds per hour and 7.2 tons per year. There shall be no visible particulate emissions from this emissions unit. See b)(2)a. and b)(2)g.
b.	OAC rule 3745-31-05(D) [Synthetic Minor to avoid Title V permitting]	Emissions of sulfur dioxide (SO_2) from the combustion of Light Ends Fuel Oil (as defined in (c)(4)) and natural gas in this emission unit shall not exceed 0.33

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		lb/MMBtu. Prior to the installation and startup of P005, emissions of sulfur dioxide (SO_2) from combustion of Light Ends Fuel Oil and natural gas in this emissions unit shall not exceed 19.2 tons as a rolling, 12-month summation. Following the installation and startup of P005, emissions of sulfur dioxide (SO_2) from combustion of Light Ends Fuel Oil and natural gas in this emissions unit shall not exceed 1.0 tons as a rolling, 12-month summation. Prior to the installation and startup of P005, emissions of hydrogen chloride (HCl) from this emissions unit shall not exceed 0.46 pound per hour and 1.34 tons as a rolling, 12-month summation. Following the installation and startup of P005, emissions of hydrogen chloride (HCl) from this emissions unit shall not exceed 0.1 pound per hour and 0.4 tons as a rolling, 12-month summation. The requirements of this rule also includes compliance with the requirements of ORC 3704.03(F)(4)(c). See b)(2)a, b)(2)f. and g)(3).
c.	OAC rule 3745-31-05(D) [Voluntary Restriction to avoid BAT]	Emissions of organic compounds (OC) from the combustion of Light Ends Fuel Oil and the incineration of OC-containing process vent streams in this emissions unit shall not exceed 0.9 pounds per hour and 2.7 tons per year. Emissions of OC from the combustion of natural gas and the incineration of OC-containing process vent streams in this emissions unit shall not exceed 0.6 pounds per hour and 2.5 tons per year. See b)(2)d. below.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-21-07(M)(2)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D).
e.	OAC rule 3745-18-31(A)(3)	The SO_2 emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D).
f.	OAC rule 3745-18-06(E)(2)	The SO_2 emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D).
g.	OAC rule 3745-17-10(B)(1)	Emissions of particulate matter from the combustion of Light Ends Fuel Oil (as defined in (c)(4)) in this emissions unit shall not exceed 0.040 lb/MMBtu. Emissions of particulate matter from the combustion of natural gas in this emissions unit shall not exceed 0.020 lb/MMBtu. See b)(2)b. below.
h.	OAC rule 3745-17-07(A)(1)	The opacity limitation specified by this rule is less stringent than the opacity limitation established pursuant to OAC rule 3745-31-05(A)(3).
i.	OAC rule 3745-31-05(A)(3)(b)	See b)(2)c. below.
j.	3704.03(F)(4)(c)	See b)(2)e. below.

(2) Additional Terms and Conditions

a. The permittee shall not accept or utilize in their process any hazardous wastes or used oil mixed with hazardous wastes, and shall comply with all applicable hazardous waste standards for used oil.

b. The permittee shall use only Light Ends Fuel Oil (equivalent to off-specification No. 2 Fuel Oil) or natural gas as fuel in this process heater.

c. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate matter (PM) emissions from this air contaminant source since the calculated annual emission rate for PM are less than 10 tons per year taking into account the federally enforceable rule limits of 0.040 lb/MMBtu when combusting fuel oil and 0.020 lb/MMBtu when combusting natural gas under OAC rule 3745-17-10(B)(1) and the federally-enforceable Light Ends Fuel Oil usage limitation of 843,652 gallons per year and the federally-enforceable natural gas usage limitation of 156,000,000 cubic feet per year.

d. Permit to install 01-12184 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purposes of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

   i. OC emissions from emissions units P001, P002, P003, P004 and associated *de minimis* and exempt process storage tanks and process feed tanks shall be vented through a closed-vent system to the B001 firebox (100% OC capture efficiency).

   ii. OC emissions from the closed vent system (see b)(2)d.i) shall be reduced by at least 99.5% (99.5% OC control efficiency).

e. In order to demonstrate compliance with the AToxic Air Contaminant Statute@, the Director has established, per ORC 3704.03(F)(4)(c), a limit for hydrogen chloride, which shall not exceed 11.04 pounds per day. This daily allowable emissions rate was calculated by multiplying the approved daily operating schedule submitted in the permit application, by the emission rate modeled (to determine the ground level concentration).

f. In conjunction with the installation and startup of emissions unit P005 (the installation of the CEP back-end system), the permittee shall vent the emissions from emissions unit B001 to a dry acid gas scrubber with a minimum control efficiency of 95.0% for SO_2 and 90.0 % for HCl (see e)(2)).

g. The permittee shall install and operate low-NOx burners on this emissions unit.

h. This emissions unit and all the used oils burned in it shall meet the requirements contained in this permit and OAC rules 3745-279-60 through 3745-279-67, for burning off-spec used oil for energy recovery. The used oil burned in this emissions unit shall contain less than quantifiable levels of PCBs, i.e., less than 2 ppm as defined in 40 CFR 761.3, unless the permittee has been granted approval, in writing by U.S. EPA Region V, to burn PCBs as a qualified incinerator under 40 CFR 761.70(d).

i. The permittee shall only burn off-spec used oil (LEFO) in an industrial furnace or boiler as specified in OAC 3745-279-61(A), and as identified or defined in OAC rule 3745-50-10. This emissions unit is considered a boiler as defined in OAC rule 3745-50-10(A).

c) Operational Restrictions

(1) The maximum annual Light Ends Fuel Oil fuel usage for this emissions unit shall not exceed 843,652 gallons, based upon a rolling, 12-month summation of the Light Ends Fuel Oil fuel usage figures.

The maximum annual natural gas fuel usage for this emissions unit shall not exceed 156,000,000 cubic feet, based upon a rolling, 12-month summation of the natural gas fuel usage figures.

To ensure enforceability during the first 12 calendar months of operation the permittee shall not exceed the fuel usage levels specified in the following table:

Month(s)	Maximum Allowable Light Ends Fuel Oil Usage (gallons)	Maximum Allowable Natural Gas Usage (cubic feet)
1	105,000	13,000,000
1-2	210,000	26,000,000
1-3	315,000	39,000,000
1-4	420,000	52,000,000
1-5	525,000	65,000,000
1-6	630,000	78,000,000
1-7	735,000	91,000,000
1-8	840,000	104,000,000
1-9	843,652	117,000,000
1-10	843,652	130,000,000
1-11	843,652	143,000,000
1-12	843,652	156,000,000

After the first 12 calendar months of operation, compliance with the annual Light Ends Fuel Oil fuel usage limitation shall be based upon rolling, 12-month summations of the Light Ends Fuel Oil fuel usage figures.

After the first 12 calendar months of operation, compliance with the annual natural gas fuel usage limitation shall be based upon rolling, 12-month summations of the natural gas fuel usage figures.

(2) All of the OC emissions from the emissions units P001, P002, P003, P004 and associated de minimis and exempt process storage tanks and process feed tanks shall

be vented to the B001 firebox, using a closed-vent system, for thermal incineration when one or more of these emissions units are in operation.

(3) The burning of used oil in this emissions unit prior to processing into Light Ends Fuel Oil is prohibited.

(4) All Light Ends Fuel Oil burned in this emissions unit shall be produced from Aon-specification@ (on-spec) used oil that meets the used oil fuel specifications contained in OAC 3745-279-11.

Light Ends Fuel Oil (LEFO) is an off-specification ("off-spec") used oil and must meet the following restrictions and requirements, which restricts the LEFO to the following limitations:

Contaminant/Property	Allowable Specifications
arsenic	5 ppm, maximum
cadmium	2 ppm, maximum
chromium	10 ppm, maximum
lead	100 ppm, maximum
flash point	80°F, minimum

The Light Ends Fuel Oil burned in this emissions unit shall contain less than the quantifiable levels of PCBs as defined in 40 CFR 761.3; and shall also not exceed the following mercury limitation nor fall below the following heating value:

PCB=s	less than 2 ppm
heat content	110,000 Btu/gallon, minimum
mercury	1 ppm, maximum

The Light Ends Fuel Oil burned in this emissions unit shall not exceed the following total halogens limitation nor exceed the following maximum sulfur content limitation established in this permit to install:

total halogens	450 ppm, maximum
sulfur content	0.3%, maximum

The Light Ends Fuel Oil burned in this emissions unit when controlled by a dry acid gas scrubber (see b)(2)h.) shall not exceed the following maximum total halogens limitation established in this permit to install:

total halogens 1,000 ppm, maximum

The permittee shall not burn Light Ends Fuel Oil in this emissions unit that has a total halogens content of greater than 450 ppm, maximum at any time that emissions unit B001 is operating and is not controlled by a dry acid gas scrubber as required in b)(2)h.

The burning of Light Ends Fuel Oil not meeting the above limitations, as measured using the most recent version of SW-846 or other methodology approved by Ohio EPA, Central District Office, is prohibited in this emissions unit. The management and burning of used oil is subject to the Standards for the Management of Used Oil, OAC Chapter 3745-279, and the permittee shall document and assure that Light Ends Fuel Oil burned in this emissions unit meets all of the applicable requirements of this Chapter and the limitations established in this permit to install (see also d)(2)).

(5) The minimum temperature of the combustion gases measured adjacent to the flame zone in emissions unit B001, as detailed in the applicant's correspondence dated March 19, 2009, shall be maintained at 1,100 degrees Fahrenheit or higher until initial emissions testing has been completed. Thereafter, the average temperature of the combustion gases measured adjacent to the flame zone, for any successive 3-hour period of time, shall not be below the average temperature observed during the most recent emission test that demonstrated the emissions unit was in compliance. The exhaust gas temperature measured adjacent to the flame zone and the average gas temperature measured adjacent to the flame zone shall be measured at the same location.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information:

a. the Light Ends Fuel Oil usage for each month, in gallons;

b. the natural gas usage for each month, in cubic feet;

c. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the Light Ends Fuel Oil and natural gas usage figures; and

d. the hours of operation of this emissions unit for each month.

Also, during the first 12 calendar months of operation the permittee shall record the cumulative Light Ends Fuel Oil and natural gas usage for each calendar month.

(2) The permittee shall perform and maintain the chemical analyses for Light Ends Fuel Oil burned in this emissions unit, which shall contain the following information:

a. the results of the chemical analyses demonstrating that the Light Ends Fuel Oil meets the standards established in this permit to install and in OAC 3745-279-11, and does not contain quantifiable levels of PCBs shall contain, at a minimum, the following information:

i. arsenic content, in ppm;

ii. the cadmium content, in ppm;

iii. the chromium content, in ppm;

iv. the lead content, in ppm;

v. the total halogen content, in ppm;

vi. the mercury content, in ppm;

vii. the PCB content, in ppm; and

viii. the sulfur content, in % sulfur

ix. the heat content, in Btu/gallon

x. the flash point, in degrees Fahrenheit

The permittee shall perform Light Ends Fuel Oil sampling and analyses according to the frequency and procedures in the Heartland Refinery Group (HRG) document "Quality Assurance/Quality Control Process", submitted on October 19, 2007 and f)(3) of this permit. Any changes to this document must be approved in writing by the Ohio EPA, Central District Office. The permittee shall document and assure that the Light Ends Fuel Oil burned in this emissions unit meets all of the applicable requirements of this Permit-to-Install.

Each Light Ends Fuel Oil analysis shall be kept in a readily accessible location for a period of not less than 5 years following analysis and burning in this emissions unit and shall be made available to the Ohio EPA Division of Hazardous Waste Management and/or the Division of Air Pollution Control (Central District Office) upon verbal or written request. Any authorized representative of the Ohio EPA may sample or require sampling of any Light Ends Fuel Oil stored or burned by/at this facility for periodic detailed chemical analyses, through an independent laboratory.

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

a. the color of the emissions;

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

c. any corrective actions taken to eliminate the visible emissions.

(4) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average exhaust gas temperature adjacent to the flame zone in emissions unit B001, for any 3-hour block of time, shall not be below the average exhaust gas temperature adjacent to the flame zone in emissions unit B001 measured during the most recent emissions test that demonstrated the emissions unit was in compliance.

Until compliance testing has been conducted, the minimum temperature of the exhaust gases adjacent to the flame zone in emissions unit B001 shall be maintained at 1,100 degrees Fahrenheit or higher. Emission unit B001 shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manual.

(5) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder which measures and records the exhaust gas temperature at the exit of the firebox when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The monitoring and recording devices shall record a minimum of one data point per minute. This monitoring system consists of all the equipment used to acquire data and includes the data recording/processing hardware and software. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer=s recommendations, instructions, and the operating manuals. The permittee shall collect and record the following information each day the emissions units are in operation:

a. all 3-hour blocks of time during which the average exhaust gas temperature at the exit of the firebox, when the emissions unit is in operation, was below the average temperature measured during the most recent emissions test that demonstrated the emissions units were in compliance;

b. prior to the initial compliance demonstration, all successive 3-hour blocks of time during which the average combustion gas temperature measured adjacent to the flame zone, when the emissions unit was in operation, was less than 1,100 degrees; and

c. a log or record of the operating time for the capture (collection) system, hot oil heater, monitoring equipment, and associated emissions units.

These records shall be maintained at the facility for a period of five years.

(6) Whenever the monitored average exhaust gas temperature at the exit of the firebox deviates from the range specified in this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

a. a description of the corrective action;

b. the date corrective action was completed;

c. the date and time the deviation ended;

d. the total period of time (in minutes) during which there was a deviation;

e. the temperature readings immediately after the corrective action was implemented; and

f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The temperature range is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Central District Office. The permittee may request revisions to the permitted temperature range based upon information obtained during future emission tests that demonstrate compliance with the allowable OC emission rate and destruction efficiency for the controlled emissions units. In addition, approved revisions to the temperature range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

(7) The federally enforceable permit-to-install and operate (FEPTIO) application for this emissions unit B001 was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The AToxic Air Contaminant Statute@, ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled AReview of New Sources of Air Toxic Emissions, Option A@, as follows:

a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists= (ACGIH) AThreshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices@; or

ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists= (ACGIH) AThreshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices@; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., A24@ hours per day and A7@ days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

TLV/10 x 8/X x 5/Y = 4 TLV/XY = MAGLC

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or Aworst case@ toxic contaminant:

Toxic Contaminant: Hydrogen chloride

TLV (mg/m3): 1.474

Maximum Hourly Emission Rate (lbs/hr): 0.46

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 50.10

MAGLC (ug/m3): 52.34

The permittee, having demonstrated that emissions of hydrogen chloride, from emissions unit B001, is estimated to be equal or greater than eighty per cent, but less than 100 per cent of the maximum acceptable ground level concentration (MAGLC), shall not operate the emissions unit(s) at a rate that would exceed the daily emissions rate, process weight rate, and/or restricted hours of operations, as allowed in this permit; and any new raw material or processing agent shall not be applied without evaluating each air toxic contaminant in accordance with ORC 3704.03(F).

(8) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration@, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and

c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the AToxic Air Contaminant Statute@, ORC 3704.03(F), will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the AToxic Air Contaminant Statute@, ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a “modification”, the permittee shall apply for and obtain a final PTI, PTIO, or FEPTIO (as applicable) prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

(9) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the AToxic Air Contaminant Statute@:

a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the AToxic Air Contaminant Statute@, ORC 3704.03(F);

c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the AToxic Air Contaminant Statute@, ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

d. the documentation of the initial evaluation of compliance with the AToxic Air Contaminant Statute@, ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

(10) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the AToxic Air Contaminant Statute@, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

(11) The permittee shall maintain a record of any incident when Light Ends Fuel Oil combusted in this emissions unit has a total halogen concentration of greater than 450 ppm and the emissions from B001 were not vented to the dry acid gas scrubber.

(12) The permittee shall maintain a record of any incident when the Light Ends Fuel Oil combusted in this emissions unit had a total halogen content of greater than 1000 ppm.

(13) The permittee shall maintain a record of any incident when a fuel other than Light Ends Fuel Oil or natural gas is combusted in this emissions unit.

e) Reporting Requirements

(1) The permittee shall notify the Ohio EPA Division of Hazardous Waste Management (if permitte has not already received an US EPA ID number) and the Division of Air Pollution Control (Ohio EPA Central District Office) of their intent to burn off-specification (off spec) used oils in this emissions unit. If the facility has not previously been assigned a U.S. EPA identification number, the permittee shall submit either the Ohio EPA form EPA9029 or a letter requesting the assignment of a U.S. EPA identification number; this notification shall follow the requirements of OAC rule 3745-279-51. The permittee shall not burn used oil exceeding the used oil specifications contained in OAC rule 3745-279-11 until the U.S. EPA identification number has been assigned to the facility and a final permit has been issued by the Division of Air Pollution Control for the burning of off-spec used oils for energy recovery in the emissions unit.

(2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

(3) The permittee shall submit quarterly deviation (excursion) reports that identify:

a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the Potential to Emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

i. Emissions of sulfur dioxide (SO_2) from the combustion of Light Ends Fuel Oil and natural gas in this emission unit shall not exceed 0.33 lb/MMBtu.

ii. Prior to the installation and startup of P005, emissions of sulfur dioxide (SO_2) from combustion of Light Ends Fuel Oil and natural gas in this emissions unit shall not exceed 19.2 tons as a rolling, 12-month summation.

iii. Following the installation and startup of P005, emissions of sulfur dioxide (SO_2) from combustion of Light Ends Fuel Oil and natural gas in this emissions unit shall not exceed 1.0 tons as a rolling, 12-month summation.

iv. Prior to the installation and startup of P005, emissions of hydrogen chloride (HCl) from this emissions unit shall not exceed 0.46 pound per hour and 1.34 tons as a rolling, 12-month summation.

v. Following the installation and startup of P005, emissions of hydrogen chloride (HCl) from this emissions unit shall not exceed 0.1 pound per hour and 0.4 tons as a rolling, 12-month summation.

vi. In conjunction with the installation and startup of emissions unit P005 (the installation of the CEP back-end system), the permittee shall vent the emissions from emissions unit B001 to a dry acid gas scrubber with a minimum control efficiency of 95.0% for SO_2 and 90.0 % for HCl

vii. all exceedances of the rolling, 12-month limitation on Light Ends Fuel Oil or natural gas usage, and for the first 12 calendar months of operation all exceedances of the maximum allowable cumulative Light Ends Fuel Oil or natural gas usage levels

viii. an identification of each incident when Light Ends Fuel Oil combusted in this emissions unit has a total halogen concentration of greater than 450 ppm and the emissions from B001 were not vented to the dry acid gas scrubber

ix. an identification of each incident when Light Ends Fuel Oil combusted in this emissions unit has a total halogen concentration of greater than 1000 ppm

b. the probable cause of each deviation (excursion);

c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and

d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted (postmarked) each year by the thirty-first of January (covering October to December), the thirtieth of April (covering January to March), the thirty-first of July (covering April to June), and the thirty-first of October (covering July to September), unless an alternative schedule has been established and approved by the director (the appropriate district office or local air agency).

(4) The permittee shall submit quarterly deviation reports, to the appropriate Ohio EPA District Office or local air agency, documenting any exceedance of the daily limitation on toxic air emissions or any deviation from a restriction on the process or hours of operation, as established by the Director in order to maintain any toxic air contaminant below its MAGLC. The permittee shall also report any changes made, during the calendar quarter, to a parameter or value entered into the dispersion model that demonstrate compliance with the AToxic Air Contaminant Statute@, ORC 3704.03(F). These quarterly reports shall be submitted by April 30, July 31, October 31, and January 31, and shall cover the records for the previous calendar quarters.

(5) The permittee shall submit deviation (excursion) reports that identify any time periods when emissions units P001, P002, P003 or P004 were operating and OC emissions from these emissions units were not vented to the hot oil heater firebox. Each report shall be submitted within 30 days after the deviation occurs.

(6) The permittee shall notify the director (Central District Office) in writing of any record which shows a deviation from the allowable sulfur concentration limitation contained in this permit, based upon the results of Light Ends Fuel Oil analysis required in d)(2). The notification shall include a copy of such record and shall be sent to the director (Central District Office) within 45 days after the deviation occurs.

(7) The permittee shall notify the director (Central District Office) in writing of any record which shows a deviation from the allowable total halogen concentration limitation contained in this permit, based upon the results of Light Ends Fuel Oil analysis required in d)(2). The notification shall include a copy of such record and shall be sent to the director (Central District Office) within 45 days after the deviation occurs.

(8) The permittee shall notify the U.S. EPA and and the Division of Air Pollution Control (Ohio EPA Central District Office), in writing and within 30 days, of burning any Light Ends Fuel Oil exceeding the limitations found in OAC rule 3745-279-11 and/or any incident or occurrence of non-compliance with any other applicable requirement of OAC Chapter 3745-279 and/or 40 CFR part 761; and shall also notify the Ohio EPA Division of Air Pollution Control, within the same amount of time, if any Light Ends Fuel Oil is/was burned which exceeds the restrictions and limitations found in c)(4).

f) Testing Requirements

(1) Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation:

Emissions of nitrogen oxides (NO_x) from the combustion of Light Ends Fuel Oil in this emissions unit shall not exceed 2.80 pounds per hour. Emissions of sulfur dioxide (SO_2) from the combustion of Light Ends Fuel Oil in this emission unit shall not exceed 0.33 lb/MMBtu. Emissions of hydrogen chloride (HCl) from this emissions unit shall not exceed 0.46 pounds per hour. Emissions of organic compounds (OC) from the combustion of Light Ends Fuel Oil and the incineration of OC-containing process vent streams in this emissions unit shall not exceed 0.9 pounds per hour

<u>Applicable Compliance Method:</u>

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

i. The emission testing shall be conducted within 60 days after achieving the maximum production rate but no later than 120 days after initial startup of the emissions unit.

ii. Emission testing for this emissions unit may be performed in conjunction with required emission testing for emissions units P001, P002, P003, P004, and P005.

iii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emissions rates for NO_x, SO_2, HCl and OC while burning Light Ends Fuel Oil.

iv. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:

For NO_x, 40 CFR Part 60, Appendix A Methods 1-4 and 7E;

For SO_2, 40 CFR Part 60, Appendix A Methods 1, 2, 3B, 4, 6 and 19;

For hydrogen chloride, 40 CFR Part 60, Appendix A Methods 1-4 and 26A; and

For OC, 40 CFR Part 60, Appendix A Methods 1-4 and 25, 25A or 40 CFR Part 63, Appendix A, Method 320.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

v. The test(s) shall be conducted while emissions units B001, P001, P002, P003 and P004 are operating at or near their maximum capacity while firing with only Light Ends Fuel Oil, unless otherwise specified or approved by the Ohio EPA Central District Office.

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

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

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

b. Emission Limitation:

Emissions of nitrogen oxides (NO_x) from the combustion of natural gas in this emissions unit shall not exceed 1.9 pounds per hour.

Applicable Compliance Method

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 7E.

c. Emission Limitation:

Emissions of nitrogen oxides (NO_x) from the combustion of Light Ends Fuel Oil in this emissions unit shall not exceed 8.1 tons per year.

Applicable Compliance Method:

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitations is maintained (each annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

d. Emission Limitation:

Emissions of nitrogen oxides (NO_x) from the combustion of natural gas in this emissions unit shall not exceed 7.2 tons per year.

Applicable Compliance Method:

Compliance with the annual allowable nitrogen oxides emission limitations shall be calculated using the annual gaseous fuel usage (See c)(1)) by the emission factors provided by the permittee and natural gas heating value (in Btu/ft^3). Calculations for annual NO_x emissions from the combustion of gaseous fuel shall be performed according to the calculations strategy provided by the permittee in PTI application 01-12184 (submitted September 6, 2007).

e. Emission Limitation:

Emissions of sulfur dioxide (SO_2) from combustion of Light Ends Fuel Oil and natural gas in this emissions unit shall not exceed 19.22 tons as a rolling, 12-month summation.

Applicable Compliance Method

Compliance with the annual allowable sulfur dioxide (SO_2) emission limitations shall be demonstrated by multiplying the observed emission rate from the most recent emissions test, in pounds of SO_2 per hour, by the actual rolling, 12-month summation of emission unit operating hours, and dividing by 2000 pounds per ton.

The result of the calculation above shall be added to the calculated SO_2 emissions rate obtained by multiplying using the annual gaseous fuel usage (See c)(1)) by the emission factors provided by the permittee and natural gas heating value (in Btu/ft^3). Calculations for annual SO_2 emissions from the combustion of gaseous fuel shall be performed according to the calculations strategy provided by the permittee in PTI application 01-12184 (submitted September 6, 2007).

f. Emissions Limitation:

Emissions of organic compounds (OC) from the combustion of Light Ends Fuel Oil and the incineration of OC-containing process vent streams in this emissions unit shall not exceed 2.7 tons per year.

Applicable Compliance Method:

Compliance with the annual mass emissions limitation shall be assumed so long as the permittee demonstrates compliance with the hourly emissions limitation and the rolling, 12-month Light Ends Fuel Oil usage restrictions (see c)(1)).

g. Emissions Limitation:

Emissions of OC from the combustion of natural gas and the incineration of OC-containing process vent streams in this emissions unit shall not exceed 0.6 pounds per hour

Applicable Compliance Method

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 25, 25A or 40 CFR Part 63, Appendix A, Method 320.

h. Emissions Limitation:

Emissions of OC from the combustion of natural gas and the incineration of OC-containing process vent streams in this emissions unit shall not exceed 2.5 tons per year.

Applicable Compliance Method

Compliance with the annual mass emissions limitation shall be assumed so long as the permittee demonstrates compliance with the average firebox temperature limitation (see d)(4)) and the rolling, 12-month natural gas usage restriction (see c)(1) above).

i. Emission Limitation:

Emissions of particulate matter from the combustion of Light Ends Fuel Oil in this emissions unit shall not exceed 0.040 lb/MMBtu

Emissions of particulate matter from the combustion of natural gas in this emissions unit shall not exceed 0.020 lb/MMBtu

Applicable Compliance Method

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

j. Emission Limitation:

Emissions of hydrogen chloride (HCl) from this emissions unit shall not exceed 1.34 tons as a rolling, 12-month summation.

Applicable Compliance Method

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitations is maintained (each annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

(2) In conjunction with the installation and startup of the second phase of this used oil re-refining project, the permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. Testing for scrubber control efficiency shall be conducted within 60 days after achieving the maximum production rate for the second phase of this used oil re-refining project (the installation of the CEP back-end system) but no later than 120 days after initial startup of the CEP back-end system.

b. The emission testing shall be conducted to demonstrate compliance with the following control efficiency requirements:

i. SO_2 emissions from this emissions unit shall be reduced by at least 95.0% (95.0% control efficiency); and

ii. Hydrogen chloride (HCl) emissions from this emissions unit shall be reduced by at least 90.0%

c. The following test methods shall be employed to demonstrate compliance with the allowable control efficiencies:

For SO_2, 40 CFR Part 60, Appendix A Methods 1-4 and 6; and

For hydrogen chloride, 40 CFR Part 60, Appendix A Methods 1-4 and 26A.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity while firing with only Light Ends Fuel Oil, unless otherwise specified or approved by the Ohio EPA Central District Office.

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

the Ohio EPA Central District Office's refusal to accept the results of the emission test(s).

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

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

(3) The concentrations of mercury, PCBs, and total halogens in the used oil shall be analyzed using a “total constituent analysis” method, as specified in U.S. EPA publication SW-846, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods." The applicable test methods that should be used are as follows:

Mercury: SW-846, Method 7471A;

PCBs: SW-846, Method 8270C or 8082; and

Total halogens: SW-846, Method 9075, 9076, or 9077.

The permittee shall submit a written request and receive approval from Ohio EPA Division of Hazardous Waste Management and/or the Division of Air Pollution Control, of Central Office, before an alternative test method, not listed above, can be used for the total constituent analysis of the above-mentioned off-spec used oil contaminants.

g) Miscellaneous Requirements

(1) In conjunction with the installation and startup of the second phase of this used oil re-refining project (the installation of the CEP back-end system), the permittee shall vent the emissions from emissions unit B001 to a scrubber with a minimum control efficiency of 95.0% for SO_2 and 90.0 % for HCl.

2. P001, Dewatering and Light Ends Oil Removal

Operations, Property and/or Equipment Description:

DLOR - Front End Skid Dehydration and Light Oil Removal

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) [Synthetic minor to avoid BAT]	Emissions of organic compounds (OC) shall not exceed 0.08 lb/hr and 0.35 tons per year. See b)(2)a.
b.	OAC rule 3745-21-07	The organic compound emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D).

(2) Additional Terms and Conditions

a. Permit to install 01-12184 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purposes of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

i. OC emissions from emissions units P001, P002, P003, P004 and de minimis and exempt process storage tanks and process feed tanks shall be vented through a closed-vent system to the B001 firebox (100% OC capture efficiency).

ii. OC emissions from the closed vent system (see b)(2)a.i) shall be reduced by at least 99.5% (99.5% control efficiency).

c) Operational Restrictions

(1) Used oil processed by this emissions unit shall be Aon-specification@ (on-spec) oil and must meet the used oil specifications contained in OAC 3745-279-11, which restricts the used oil to the following limitations:

Contaminant/Property	Allowable Specifications
arsenic	5 ppm, maximum
cadmium	2 ppm, maximum
chromium	10 ppm, maximum
lead	100 ppm, maximum
total halogens	4,000 ppm maximum*
flash point	100°F, minimum

The used oil processed in this emissions unit shall contain less than the quantifiable levels of PCBs as defined in 40 CFR 761.3; and shall also not exceed the following mercury limitation:

PCB=s	less than 2 ppm
mercury	1 ppm, maximum

* Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under paragraph (B)(1) of rule 3745-279-10 of the Administrative Code. The permittee may process used oil exceeding 1,000 ppm total halogens (but less than 4,000 ppm maximum) only if the permittee is able to demonstrate that the used oil has not been mixed with hazardous waste pursuant to OAC rule 3745-279-10(B).

The processing of used oil not meeting the above limitations is prohibited in this emissions unit. The management of used oil is subject to the Standards for the Management of Used Oil, OAC Chapter 3745-279, and the permittee shall document and assure that used oils processed in this emissions unit meet all of the applicable requirements of this Chapter and the limitations established in this permit to install.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall collect and record B001 firebox temperature data per d)(4), d)(5), and d)(6) of Section C.1.

(2) The permittee shall perform and maintain, or receive and maintain from the supplier/marketer, the chemical analyses for each shipment of used oil processed in this emissions unit. These analyses shall contain the following information:

a. the date the used oil was received at the facility;

b. the name, address, and U.S. EPA identification number (if applicable) of the generator, transporter, processor/re-finer, supplier, and/or marketer;

c. the results of the chemical analyses demonstrating that the used oil meets the standards in OAC 3745-279-11 and does not contain quantifiable levels of PCBs shall contain, at a minimum, the following information:

i. arsenic content, in ppm;

ii. the cadmium content, in ppm;

iii. the chromium content, in ppm;

iv. the lead content, in ppm;

v. total halogens, in ppm;

vi. the PCB content, in ppm; and

vii. the flash point

d. the results of the analyses demonstrating that the used oil meets the heating value and mercury limitation contained in this permit.

e. if the used oil has a total halogen content greater than 1,000 ppm but below 4,000 the permittee shall maintain the following additional records:

i. documentation which rebuts the presumption that the used oil has been mixed with a listed hazardous waste as described in OAC rule 3745-279-10(B).

f. if the used oil has a total halogen content greater than 4,000 ppm, the permittee shall maintain an additional record of the rejection of this shipment.

Each analysis and associated documentation shall be kept in a readily accessible location for a period of not less than 5 years following the receipt of each shipment of used oil and shall be made available to the Ohio EPA Division of Hazardous Waste Management and/or the Division of Air Pollution Control (Ohio EPA Central District Office) upon verbal or written request. Any authorized representative of the Ohio EPA may sample or require sampling of any used oil shipments received, stored, or burned by/at this facility for periodic detailed chemical analyses, through an independent laboratory.

The permittee shall maintain a record of each incident when used oil was processed in this emissions unit which had a total halogen concentration of greater than 1000 ppm and the presumption that the used oil is hazardous waste or mixed with hazardous

waste (as described in OAC rule 3745-279-10(B)) was not rebutted in accordance with OAC rule 3745-279-63.

e) Reporting Requirements

(1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

(2) The permittee shall submit deviation (excursion) reports that identify any time periods when the emissions unit was in operation and the OC emissions were not vented to the hot oil heater firebox. Each report shall be submitted within 30 days after the deviation occurs

(3) The permittee shall notify the U.S. EPA and the Division of Air Pollution Control (Central District Office), in writing and within 30 days, of processing any used oil exceeding the limitations found in OAC rule 3745-279-11 and/or any incident or occurrence of non-compliance with any other applicable requirement of OAC Chapter 3745-279 and/or 40 CFR part 761; and shall also notify the Ohio EPA Division of Air Pollution Control, within the same amount of time, if any oil is/was burned which exceeds the mercury limitation of 1 ppm and/or is documented as having a heating value of less than 135,000 Btu/gallon.

f) Testing Requirements

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

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate but no later than 120 days after initial startup of the emissions unit.

b. Emission testing for this emissions unit may be performed in conjunction with required emission testing for emissions units B001, P002, P003, P004, and P005.

c. The emission testing shall be conducted to demonstrate compliance with the following emissions limitations:

Emissions of organic compounds (OC) shall not exceed 0.08 lb/hr.

d. The following test methods shall be employed to demonstrate compliance with the OC mass emissions limitation:

i. 40 CFR Part 60, Appendix A Methods 1-4 and 25 or 25A; or

ii. 40 CFR Part 60, Appendix A Methods 1-4 and 40 CFR Part 63, Appendix A, Method 320.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

e. The test(s) shall be conducted while emissions units B001, P001, P002, P003 and P004 are operating at or near their maximum capacity while firing with only Light Ends Fuel Oil, unless otherwise specified or approved by the Ohio EPA Central District Office.

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

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

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

g) Miscellaneous Requirements

(1) None.

3. P005, CEP - Hydrofinishing and Product Stripping System

Operations, Property and/or Equipment Description:

CEP - Hydrofinishing and Product Stripping System

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(1)a, c)(1), and d)(12)

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Hydrofinishing Process Emissions		
a.	OAC rule 3745-31-05(D) [Voluntary restriction to avoid BAT requirements and Title V permitting]	Emissions of sulfur dioxide (SO_2) from this emissions unit shall not exceed 1.7 pounds per hour and 6.9 tons per year as measured at the dry acid gas scrubber exhaust stack. See b)(2)a. and c)(1) below.
b.	OAC rule 3745-31-05(D) [Voluntary restriction to avoid BAT]	See b)(2)b. below.
c.	OAC rule 3745-31-05(D) [Voluntary restriction to avoid Air Toxics Modeling pursuant to OAC rule 3745-114]	Facility-wide emissions of hydrogen chloride (HCl) this shall be less than 1.0 tons per year from the dry acid gas scrubber exhaust stack. Facility-wide missions of ammonia shall be less than 1.0 tons per year from the

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		dry acid gas scrubber exhaust stack. See b)(2)a. and d)(11).
d.	OAC rule 3745-17-11(A)(2)	Emissions of particulate matter from the exhaust of the dry scrubber fabric filter shall not exceed 0.7 pounds per hour and 3.1 tons per year. See b)(2)a. below.
e.	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
Hot Oil Heater Natural Gas Combustion Emissions		
f.	OAC rule 3745-31-05(A)(3)(b)	See b)(2)c.
Startup and Shutdown Enclosed Flare Emissions		
g.	OAC rule 3745-31-05(C) [Voluntary restriction to avoid BAT]	See b)(2)d.
Emergency Shutdown Open Flare Emissions		
h.	OAC rule 3745-31-05(C) [Voluntary restriction to avoid BAT]	See b)(2)d.

(2) Additional Terms and Conditions

a. Permit to install 01-12184 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

i. The permittee shall vent all process emissions first to the P005 hot oil heater firebox followed by a sodium bicarbonate-injected dry scrubber with a minimum of 95% control efficiency for SO_2 and 90% control efficiency for HCl at all times that this emissions unit is operating.

ii. Emissions of particulate matter from the injection of dry sorbent into the dry scrubber shall be controlled by a fabric filter integral to the dry

scrubber to the level required by OAC rule 3745-17-11(A)(2) according to Table I.

b. Permit to install 01-12184 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

i. OC emissions from emissions unit P005 shall be vented through a closed-vent system to the P005 hot oil heater firebox for incineration (100% OC capture efficiency).

ii. Emissions of OC from the incineration of OC-containing process vent streams shall not exceed 0.1 lb/hr and 0.5 ton/yr as measured at the dry acid gas scrubber exhaust stack.

c. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the emission of nitrogen oxides (NO_x), carbon monoxide (CO), sulfur dioxide (SO_2), organic compounds (OC), or particulate matter (PM) from the combustion of natural gas in this air contaminant source since the uncontrolled potential to emit for NO_x, CO, SO_2, OC and PM is less than 10 tons per year.

d. Permit to install 01-12184 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

i. The permittee shall vent all process emissions from emissions unit P005 to an enclosed flare with a control efficiency of 98% for OC during any period of startup or shutdown of this emissions unit.

ii. The permittee shall vent all process emissions from emissions unit P005 to an open flare with a control efficiency of 98% for OC emissions during any period of process malfunction or upset defined as an "emergency" by the permittee.

iii. The permittee shall limit the number of controlled plant shutdowns and startups to the extent possible with good engineering practice. Each controlled plant shutdown shall vent emissions to the shutdown flare for for the minimum time period necessary to evacuate remaining process hydrogen from the system, and may include additional time as deemed necessary by the permittee to safely shut down the process.

iv. The permittee shall limit the number of emergency shutdowns to the extent possible with good engineering practice. Each emergency plant shutdown shall vent emissions to the emergency flare for the minimum time period necessary to evacuate remaining process hydrogen from the system, and may include additional time as deemed necessary by the permittee to safely shut down the process.

e. The minimum temperature of the combustion gases measured adjacent to the flame zone in emissions unit P005, as detailed in the applicant's correspondence dated March 19, 2009, shall be maintained at 1,100 degrees Fahrenheit or higher until initial emissions testing has been completed. Thereafter, the average temperature of the combustion gases measured adjacent to the flame zone, for any successive 3-hour period of time, shall not be below the average temperature observed during the most recent emission test that demonstrated the emissions unit was in compliance. The exhaust gas temperature measured adjacent to the flame zone and the average gas temperature measured adjacent to the flame zone shall be measured at the same location.

c) Operational Restrictions

(1) The maximum annual operating hours for this emissions unit shall not exceed 7,920 hours, based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the operating hours levels specified in the following table:

Month(s)	Maximum Allowable Cumulative Operating Hours
1	744
1-2	1,466
1-3	2,232
1-4	2,976
1-5	3,720
1-6	4,464
1-7	5,208
1-8	5,952
1-9	6,696
1-10	7,440
1-11	7,920
1-12	7,920

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

(2) The permittee vent all emissions from the P005 hot oil heater to a dry acid gas scrubber with integrated baghouse at all times this emissions unit is in operation.

(3) The permittee shall maintain the pressure drop across the dry acid gas scrubber integrated baghouse of 4 - 8 inches of water at all times this emissions unit is in operation.

(4) The permittee shall maintain a dry sorbent injection rate of sodium bicarbonate into the dry scrubber at not less than the rate required to meet the SO_2 and HCl control efficiency established in b)(2)a.. This injection rate shall be established based on emissions

testing that demonstrates this emissions unit is in compliance with the terms and conditions of this Permit-to-Install.

(5) The minimum temperature of the combustion gases measured adjacent to the flame zone in the hot oil heater associated with emissions unit P005, as detailed in the applicant's correspondence dated March 19, 2009, shall be maintained at 1,000 degrees Fahrenheit or higher until initial emissions testing has been completed. Thereafter, the average temperature of the combustion gases measured adjacent to the flame zone, for any successive 3-hour period of time, shall not be below the average temperature observed during the most recent emission test that demonstrated the emissions unit was in compliance. The exhaust gas temperature measured adjacent to the flame zone and the average gas temperature measured adjacent to the flame zone shall be measured at the same location.

(6) The permittee shall not accept or utilize in their process any hazardous wastes or used oil mixed with hazardous wastes, and shall comply with all applicable requirements for used oil pursuant to OAC chapter 3745-279.

(7) The permittee shall process only blended feed that was produced in the Phase I installation, or purchased feed that meets the same specifications as the Phase I blended feed, in this emissions unit.

d) Monitoring and/or Recordkeeping Requirements

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

a. the color of the emissions;

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

c. any corrective actions taken to eliminate the visible emissions.

(2) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average exhaust gas temperature measured adjacent to the flame zone in the hot oil heater associated with emissions unit P005, for any 3-hour block of time shall not be below the average exhaust gas temperature at the exit of the firebox measured during the most recent emissions test that demonstrated the emissions unit was in compliance.

Until compliance testing has been conducted, the minimum temperature of the exhaust gases a measured adjacent to the flame zone in the hot oil heater associated with emissions unit P005 shall be maintained at 1,000 degrees Fahrenheit or higher. The hot oil heater associated with emission unit P005 shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manual.

The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder which measures and records the exhaust gas temperature at the

exit of the firebox when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The monitoring and recording devices shall record a minimum of one data point per minute. This monitoring system consists of all the equipment used to acquire data and includes the data recording/processing hardware and software. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer=s recommendations, instructions, and the operating manuals. The permittee shall collect and record the following information each day the emissions unit is in operation:

a. all 3-hour blocks of time during which the average exhaust gas temperature measured adjacent to the flame zone in the hot oil heater associated with emissions unit P005, when the emissions unit is in operation, was below the average temperature measured during the most recent emissions test that demonstrated the emissions units were in compliance;

b. prior to the initial compliance demonstration, all successive 3-hour blocks of time during which the average exhaust gas temperature measured adjacent to the flame zone in the hot oil heater associated with emissions unit P005, when the emissions unit was in operation, was less than 1,000 degrees; and

c. a log or record of the operating time for the capture (collection) system, hot oil heater, monitoring equipment, and associated emissions unit.

These records shall be maintained at the facility for a period of five years.

(3) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable dry sorbent injection rate into the dry scrubber, as measured by injection motor speed in motor amperage (amps), shall not be less than the dry sorbent injection rate, as measured in amps, during the most recent emissions test that demonstrated the emissions unit was in compliance.

Until compliance testing has been conducted, the minimum dry sorbent injection motor speed shall be maintained at or above the motor speed, as measured in amps, required to achieve a dry sorbent injection rate of 145 pounds per hour or higher. The dry scrubber shall be installed, operated and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manual.

The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the dry sorbent injection motor speed, in amps, at all times this emissions unit is in operation. The monitoring and recording devices shall record a minimum of one data point per minute. The dry sorbent injection monitoring and recording equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer=s recommendations, instructions, and operating manual(s).

(4) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the dry acid gas scrubber integrated baghouse when any controlled emissions units are in operation. The permittee shall record the pressure drop across the baghouse on daily basis. The

monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer=s recommendations, instructions, and operating manual(s).

(5) The permittee shall verify that the dry sorbent injection system is operating by inspecting each sorbent feed hopper or silo at least once each 8-hour period and recording the results of each inspection. If sorbent is found not to be free-flowing during any of the 8-hour periods, the owner or operator must increase the frequency of inspections to at least once every 4-hour period for the next 3 days. The owner or operator may return to inspections at least once every 8 hour period if corrective action results in no further blockages of sodium bicarbonate during the 3-day period.

(6) Whenever the monitored average exhaust gas temperature at the exit of the firebox (see d)(2)), the monitored dry sorbent injection motor speed (in amps) (see d)(3)), and / or the pressure drop across the dry acid gas scrubber (see d)(4)) deviates from the range specified in this permit, and / or the dry sorbent is not free-flowing (see d)(5)), the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range and / or limitation specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

a. a description of the corrective action;

b. the date corrective action was completed;

c. the date and time the deviation ended;

d. the total period of time (in minutes) during which there was a deviation;

e. the monitored parameter readings immediately after the corrective action was implemented; and

f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The temperature range established during emissions testing that demonstrates compliance with allowable OC emissions rate is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Central District Office. The permittee may request revisions to the permitted temperature range based upon information obtained during future emission tests that demonstrate compliance with the allowable OC emission rate and destruction efficiency for the controlled emissions units. In addition, approved revisions to the temperature range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

The dry sorbent injection motor speed rate which achieves a dry sorbent injection rate of 145 pounds per hour or higher is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Central District Office. The permittee may request revisions to the permitted dry sorbent injection rate based upon information obtained during future emission tests that demonstrate compliance with the allowable SO_2 emission rate and control efficiency for the controlled emissions units. In addition, approved revisions to the dry sorbent injection rate will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

The range or limit on the pressure drop across the dry scrubber baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

(7) Each calendar month, the P005 bolted connections and closed vent vapor collection system shall be inspected while the emissions unit is operating for vapor leaks. For purposes of this inspection, detection methods incorporating sight, sound, or smell are acceptable. Each detection of a leak shall be recorded and the source of the leak repaired within 15 calendar days after it is detected.

(8) The permittee shall implement, within 90 days of the installation of emisisons unit P005, a leak detection program for emissions unit P005 which has been approved by Central District Office. This program shall include the methods utilized for leak identification, a protocol for the performance of monthly leak inspections and an annual inspection by a qualified individual of all components of emission unit P005. The resultant report from the annual inspection shall be maintained on-site and shall be made available during subsequent inspection by the Central District Office.

(9) The permittee shall maintain monthly records of the following information:

a. the operating hours for each month; and

b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the operating hours.

Also, during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative operating hours for each calendar month.

(10) Modeling to demonstrate compliance with the AToxic Air Contaminant Statute@ in ORC 3704.03(F)(4)(b) was not necessary because the emissions unit=s maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

The permittee shall maintain a record of each instance when purchased feed that meets the same specifications as the Phase I blended feed is processed in this emissions unin. These records shall include the following information:

a. The date and time that the material was processed in this emissions unit;

b. The quantity of material that was processed, in gallons; and

c. Any physical or chemical analyses necessary to demonstrate that the purchased feed material meets the same specifications as the blended material produced in Phase I of the process. This demonstration shall include, at minimum, the analyses found in d)(2) of Section C.2.

e) Reporting Requirements

(1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

(2) The permittee shall submit quarterly deviation (excursion) reports that identify:

a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the Potential to Emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

i. The maximum annual operating hours for this emissions unit shall not exceed 7,920 hours, based upon a rolling, 12-month summation of the operating hours; and

ii. all exceedances of the rolling, 12-month limitation on the hours of operation; and for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative hours of operation.

b. the probable cause of each deviation (excursion);

c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and

d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted (postmarked) each year by the thirty-first of January (covering October to December), the thirtieth of April (covering January to March), the thirty-first of July (covering April to June), and the thirty-first of October (covering July to September), unless an alternative schedule has been established and approved by the director (the appropriate district office or local air agency).

(3) The permittee shall submit deviation (excursion) reports that identify any time periods when emissions unit P005 was operating and OC emissions from this emissions units were not vented to the hot oil heater firebox, except for periods of startup, shutdown or facility emergency or malfunction. Each report shall be submitted within 30 days after the deviation occurs.

(4) The permittee shall submit deviation (excursion) reports that identify any time periods when emissions unit P005 was operating and SO_2 emissions from this emissions units were not vented to the dry acid gas scrubber with integrated baghouse, except for periods of startup, shutdown or facility emergency or malfunction. Each report shall be submitted within 30 days after the deviation occurs.

(5) The permittee shall submit deviation (excursion) reports that identify any time periods when emissions unit P005 processed any material other than blended feed produced in Phase I of this process, or purchased feed that meets the same specifications as the Phase I blended feed, in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

(6) The permittee shall submit deviation (excursion) reports that identify any time periods when emissions unit P005 processed any hazardous wastes or used oil mixed with hazardous wastes. Each report shall be submitted within 30 days after the deviation occurs.

(7) Any leaks detected by the sight, sound, or smell method that are not repaired within 15 days after identification shall be reported to the Central District Office within 30 days after the repair is completed. This report shall include the date the leak was detected, the date the leak was repaired, and the reason that the leak repair was not completed within 15 days of identification.

(8) Any venting of emissions to the open (emergency) flare for any reason shall be reported to the Central District Office immediately (within 24 hours) of the initiation of venting emissions to the open (emergency) flare. Venting of emissions to the open (emergency) flare is not necessarily indicative of either a permit violation or an emissions unit malfunction.

f) Testing Requirements

(1) Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation:

Emissions of OC from the incineration of OC-containing process vent streams shall not exceed 0.1 lb/hr as measured at the dry acid gas scrubber exhaust stack. Emissions of sulfur dioxide (SO_2) from this emissions unit shall not exceed 1.7 pounds per hour as measured at the dry acid gas scrubber exhaust stack. The permittee shall vent all process emissions first to the P005 hot oil heater firebox followed by a sodium bicarbonate injected dry scrubber with a minimum of 95% control efficiency for SO_2 and 90% control efficiency for HCl at all times that this emissions unit is operating.

Applicable Compliance Method:

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

i. The emission testing shall be conducted within 60 days after achieving the maximum production rate but no later than 120 days after initial startup of the emissions unit.

ii. Emission testing for this emissions unit may be performed in conjunction with required emission testing for emissions units B001, P001, P002, P003, and P004.

iii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emissions rates for OC mass emissions rate, SO_2 control efficiency, SO_2 mass emissions rate, and HCl control efficiency.

iv. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rates:

For OC, 40 CFR Part 60, Appendix A Methods 1-4 and 25, 25A or 40 CFR Part 63, Appendix A, Method 320.

For SO_2, 40 CFR Part 60, Appendix A Methods 1-4, and 6 or 6C; and

For hydrogen chloride, 40 CFR Part 60, Appendix A Methods 1-4 and 26A or 40 CFR Part 63, Appendix A, Method 321;

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

SO_2 and HCl control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined at the inlet and outlet of the dry acid gas scrubber with integrated baghouse and OC mass emissions rate shall be determined at the outlet of the dry acid gas scrubber with integrated baghouse when controlling:

(i) emissions from P005; and

(ii) emissions from B001, P001, P002, P003 and P004 when B001 is combusting Light Ends Fuel Oil.

v. The test(s) shall be conducted while the emissions unit(s) is/are operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA Central District Office.

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

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

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

b. Emission Limitation:

Emissions of sulfur dioxide (SO_2) from this emissions unit shall not exceed 6.9 tons per year as measured at the dry acid gas scrubber exhaust stack.

Applicable Compliance Method:

Compliance with the annual limitation shall be assumed as long as compliance with the hourly emissions limitation and annual operating hours restriction is maintained (the annual limitation was calculated by multiplying the hourly limitation by 7,920, and then dividing by 2000).

c. Emission Limitation:

Emissions of OC from the incineration of OC-containing process vent streams shall not exceed 0.5 ton/yr as measured at the dry acid gas scrubber exhaust stack.

Applicable Compliance Method:

Compliance with the annual limitation shall be assumed as long as compliance with the hourly emissions limitation and annual operating hours restriction is maintained (the annual limitation was calculated by multiplying the hourly limitation by 7,920, and then dividing by 2000).

d. Emission Limitation:

Emissions of particulate matter from the exhaust of the dry scrubber fabric filter shall not exceed 0.7 pounds per hour and 3.1 tons per year.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

e. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emissions limitation in accordance with 40 CFR Part 60, Appendix A, Method 9.

g) Miscellaneous Requirements

(1) None.

4. Emissions Unit Group - LUWA Group: P002, P003, P004,

EU ID	Operations, Property and/or Equipment Description
P002	LUWA 1 - Luwa Wiped Film Short Path Evaporator No. 1
P003	LUWA 2 - Luwa Wiped Film Short Path Evaporator No. 2
P004	LUWA 3 - Luwa Wiped Film Short Path Evaporator No. 3

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) [Synthetic minor to avoid BAT]	Emissions of organic compounds (OC) shall not exceed 0.013 lb/hr and 0.05 tons per year. See b)(2)a.
b.	OAC rule 3745-21-07(M)(2)	The organic compound emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D).

(2) Additional Terms and Conditions

a. Permit to install 01-12184 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution

control equipment) as proposed by the permittee for the purposes of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

i. OC emissions from emissions units P001, P002, P003, P004 and de minimis and exempt process storage tanks and process feed tanks shall be vented through a closed-vent system to the B001 firebox (100% OC capture efficiency).

ii. OC emissions from the closed vent system (see b)(2)a.i) shall be reduced by at least 99.5% (99.5% control efficiency).

c) Operational Restrictions

(1) Processing of used oil in this emissions unit prior to dehydration and Light Ends Fuel Oil removal is prohibited.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall collect and record B001 firebox temperature data per d)(4), d)(5), and d)(6) of Section C.1.

The permittee shall maintain records of each incident when used oil was processed in this emissions unit which had a total halogen concentration of greater than 1000 ppm and the presumption that the oil is hazardous waste or mixed with hazardous waste (as described in OAC rule 3745-279-10(B)) was not rebutted in accrodance with OAC rule 3745-279-63.

e) Reporting Requirements

(1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

(2) The permittee shall submit deviation (excursion) reports that identify any time periods when the emissions unit was in operation and the OC emissions were not vented to the hot oil heater firebox. Each report shall be submitted within 30 days after the deviation occurs

f) Testing Requirements

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

a. The emission testing for this group of emissions units shall be conducted within 60 days after achieving the maximum production rate but no later than 120 days after initial startup of the emissions unit.

b. Emission testing for this group of emissions unit may be performed in conjunction with required emission testing for emissions units B001, P001, and P005.

c. The emission testing shall be conducted to demonstrate compliance with the following emissions limitations:

Emissions of organic compounds (OC) shall not exceed 0.013 lb/hr for each LUWA.

d. The following test methods shall be employed to demonstrate compliance with the OC mass emissions limitation:

i. 40 CFR Part 60, Appendix A Methods 1-4 and 25 or 25A; or

ii. 40 CFR Part 60, Appendix A Methods 1-4 and 40 CFR Part 63, Appendix A, Method 320.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

e. The test(s) shall be conducted while emissions units B001, P001, P002, P003 and P004 are operating at or near their maximum capacity while firing with only Light Ends Fuel Oil, unless otherwise specified or approved by the Ohio EPA Central District Office.

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

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

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

g) Miscellaneous Requirements

(1) The permittee shall install and operate a temporary organic compound and sulfur compound control device to reduce uncontrolled emissions caused by process upsets and vent line plugging under the following restrictions:

a. This temporary emissions control device shall reduce organic emissions and sulfur compound emissions by a minimum of 99% for organic compounds and sulfur compounds, and minimize objectionable odors; and

b. This temporary arrangement shall be utilized for a period of no more than 180 days or such time as requested by the facility and approved by Ohio EPA Central District Office, after which time emissions vented to the temporary control device shall be vented to the enclosed flare.