

X Synthetic Minor Determination and/or Netting Determination

Permit To Install **01-08779**

A. Source Description

Shell Oil Products - Columbus East Terminal owns and operates a gasoline, diesel and transmix distribution terminal at 3651 Fisher Road in Columbus, Ohio. The loading rack and storage tanks at the facility were installed prior to 1974. The facility applied for a FESOP to avoid Title V applicability. To date the FESOP has not been issued and is on hold due to the pending modifications specified in this permit.

B. Facility Emissions and Attainment Status

The potential to emit (PTE) of this facility exceeds the Title V thresholds for VOC, individual HAP and combined HAPs emissions. The operational restrictions and emission limitations specified in this permit will effectively limit the facility-wide PTE as follows:

	Pre-Synthetic Minor (VOC tons)	Post Synthetic Minor (VOC tons)
Tanks	16.11	-
Loading Rack (J001)	1423.00	-
Leaks	0.63	-
Total	1439.00	99.0

	Pre-Synthetic Minor (HAP tons)	Post Synthetic Minor (HAP tons)
Tanks	11.3	-
Loading Rack (J001)	99.6	-
Leaks	-	-
Total	110.9	9.0

	Pre-Synthetic Minor (HAPs tons)	Post Synthetic Minor (HAPs tons)
Tanks	13.3	-
Loading Rack (J001)	173.6	-
Leaks	-	-
Total	186.9	24.0

C. Source Emissions

This PTI application proposes to modify the loading rack (J001) to increase the gasoline loading capacity by converting two loading arms from diesel to gasoline service which will increase the short term gasoline loading capacity by 9,790 gals/hr.

If the loading rack is restricted by the current regulatory limit (part of a federally approved SIP) of 80 mg/L, then the emissions increase would be 28.6 tons/yr. However, due to the new applicability of NSPS XX and it's limit of 35 mg/L the potential emissions increase is 12.5 tons/yr. Thus, the increase in emissions will not exceed the major NSR threshold of 40 tons/yr.

Since the facility has not been issued a FESOP, federally enforceable throughput limitations and operational restrictions have been requested for the loading rack and use of a vapor recovery unit (VRU). The limitations will restrict the facility PTE to below Title V thresholds as specified above.

D. Conclusion

The issuance of this synthetic minor PTI will effectively restrict the PTE for this facility to less than Title V thresholds. The rolling, 12-month emission limitations on VOC, individual HAP and combined HAPs will be enforced through the operational limitations. The federally enforceable operational restrictions will limit the gasoline and distillate throughput of the loading rack and the outlet concentration of the VRU.

If you have any questions, please feel free to contact me at (614) 728-3811.

Thank you,

Adam Ward
Ohio EPA/CDO/DAPC



Street Address:

Mailing Address:

State of Ohio Environmental Protection Agency
Lazarus Gov. Center TEL: (614) 644-8020 FAX: (614) 644-2829

Lazarus Gov. Center

**RE: DRAFT PERMIT TO INSTALL
FRANKLIN COUNTY
Application No: 01-08779**

CERTIFIED MAIL

DATE: 1/15/2004

Shell Oil Products US Cols East Terminal
Mike Bogenschutz
3651 Fisher Road
Columbus, OH 43228

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$2000** will be due. Please do not submit any payment now.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Very truly yours,

Michael W. Ahern, Supervisor
Field Operations and Permit Section
Division of Air Pollution Control

CC: USEPA

CDO

Mid-Ohio Regional Planning Commission

FRANKLIN COUNTY

PUBLIC NOTICE
ISSUANCE OF DRAFT PERMIT TO INSTALL 01-08779 FOR AN AIR CONTAMINANT SOURCE FOR
SHELL OIL PRODUCTS US COLS EAST TERMINAL

On 1/15/2004 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **Shell Oil Products US Cols East Terminal**, located at **3651 Fisher Road, Columbus, Ohio**.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 01-08779:

Tank 10 and truck loading.

Comments concerning this draft action, or a request for a public meeting, must be sent in writing to the address identified below no later than thirty (30) days from the date this notice is published. All inquiries concerning this draft action may be directed to the contact identified below.

Isaac Robinson, Ohio EPA, Central District Office, 3232 Alum Creek Drive, Columbus, OH 43207-3417
[(614)728-3778]



**Permit To Install
Terms and Conditions**

**Issue Date: To be entered upon final issuance
Effective Date: To be entered upon final issuance**

DRAFT PERMIT TO INSTALL 01-08779

Application Number: 01-08779
APS Premise Number: 0125040138
Permit Fee: **To be entered upon final issuance**
Name of Facility: Shell Oil Products US Cols East Terminal
Person to Contact: Mike Bogenschutz
Address: 3651 Fisher Road
Columbus, OH 43228

Location of proposed air contaminant source(s) [emissions unit(s)]:

**3651 Fisher Road
Columbus, Ohio**

Description of proposed emissions unit(s):

Tank 10 and truck loading.

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) 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 above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

4. Inspections and Information Requests

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

information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

6. Permit Transfers

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

7. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

8. Termination of Permit to Install

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions

and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

10. Public Disclosure

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

11. Applicability

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

12. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

13. Source Operation and Operating Permit Requirements After Completion of Construction

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

Shell Oil Products US Cols East Terminal
PTI Application: 01-08779
Issued: To be entered upon final issuance
3745-77-08(C)(3)(d).

Facility ID: 0125040138

Issued

Emissions Unit ID: J001

- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

15. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

**SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
VOC	99.0
HAP	9.0
HAPs	24.0

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
J001 - 2-bay truck loading rack for gasoline, diesel and transmix, equipped with a vapor recovery unit (VRU)	OAC rule 3745-31-05(A)	Volatile Organic Compound (VOC) emissions shall not exceed 28.83 lbs/hr and 66.4 tons/year.
		0.29 lb VOC/1000 gallons of gasoline loaded into a delivery vessel ("gasoline" includes ethanol and additives)
		See A.2.a below.
	OAC rule 3745-21-09(Q)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A).
	40 CFR 60 Subpart XX	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A).
	OAC rule 3745-35-07(B) (synthetic minor to avoid TV)	See A.2.b-c below.

2. Additional Terms and Conditions

- 2.a This emissions unit shall be operated such that Lane One has three gasoline loading arms, one diesel loading arm and one transmix loading arm and Lane Two has three gasoline loading arms.

Shell C
PTI A
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Emissions Unit ID: **J001**

Shell C

PTI A

Emissions Unit ID: **J001**

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- 2.b** VOC emissions from emissions units J001-two bay truck loading rack, T001-Tank 10, T002, Tank 11, T004-Tank 21, T005-Tank 22, T006-Tank 30, T007-Tank 20, T008-Tank 3, T009-Tank 4, T010-Tank 6, and T011-Tank 53, combined, shall not exceed 99.0 tons per rolling, 12-month summation (including fugitive emissions).
- 2.c** Individual hazardous air pollutant (HAP) emissions and combined HAPs emissions from emissions units J001-two bay truck loading rack, T001-Tank 10, T002, Tank 11, T004-Tank 21, T005-Tank 22, T006-Tank 30, T007-Tank 20, T008-Tank 3, T009-Tank 4, T010-Tank 6, and T011-Tank 53, combined shall not exceed 9.0 tons and 24.0 tons per rolling, 12-month summation, respectively.

B. Operational Restrictions

1. The vapor collection and control systems shall be kept in good working order and shall be used at all times during the transfer of gasoline into tank trucks.
2. The loading rack shall be equipped with a vapor collection system whereby during the transfer of gasoline to any delivery vessel:
 - a. all vapors displaced from the delivery vessel during loading are vented only to the vapor collection system; and
 - b. the pressure in the vapor collection system is maintained between minus 6 and plus 18 inches of water gauge pressure.
3. The loading rack shall be equipped with a vapor control system whereby:
 - a. all vapors collected by the vapor collection system are vented to the vapor control system; and
 - b. any liquid gasoline returned to a stationary storage tank from the vapor control system is free of entrained air to the extent possible with good engineering design.
4. A means shall be provided to prevent drainage of gasoline from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected.
5. All gasoline loading lines and vapor lines shall be equipped with fittings which are vapor tight.
6. The permittee shall prohibit gasoline to be spilled, discharged in sewers, stored in open containers

or handled in any other manner that would result in evaporation.

7. The permittee shall repair within 15 days any leak from the vapor collection system and vapor control system when such leak is equal to or greater than 100% of the lower explosive limit as propane, as determined under paragraph (K) of OAC rule 3745-21-10.
8. The following VRU parameters have been identified as key operating parameters for which acceptable operating ranges have been established. The permittee shall operate the VRU within these acceptable operating ranges to ensure ongoing compliance with the VOC emission limitation (0.29 pound/1000 gallons of gasoline, distillates and/or transmix loaded):
 - a. to ensure proper regeneration of the carbon beds, the maximum vacuum pulled during the regeneration cycle shall be greater than or equal to 25 inches Hg (the air purge solenoid shall also remain open during the regeneration cycle);
 - b. to ensure proper absorption by the absorption tower, the gasoline supply temperature shall not exceed 98 degrees F;
 - c. to ensure a proper flow rate from the absorption tower to the carbon bed, the absorber pressure shall be maintained between 8 psi and 15 psi; and
 - d. to ensure proper adsorption, the carbon bed temperatures, at all levels, shall not exceed 150 degrees F.
9. Any tank truck used in conjunction with this emissions unit must comply with the requirements of OAC rule 3745-21-09(V), if applicable.
10. The VRU shall be kept in good working order and shall be used at all times during the transfer of gasoline into fuel tank trucks (as defined by 40 CFR 60.501). Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions unit or any associated air pollution control system(s) shall be reported to the Ohio EPA, Central District Office (CDO) in accordance with OAC rule 3745-15-06(B).
11. Compliance with the emission limitations as stated in Section A.1 shall be achieved by restricting the annual throughput of gasoline (i.e., gasoline, additives, and transmix) and distillates. The annual throughput of gasoline and distillates shall not exceed 367,464,913 gallons and 100,000,000 gallons, respectively. Compliance with the annual gasoline and distillates fuel throughput limitations shall be based upon rolling, 12-month summations of the gasoline and distillates throughput.

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A table delineating the usage during the first 12 months is not necessary because records have been submitted to the Ohio EPA, CDO which demonstrate past compliance with these limitations.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. the total throughput of gasoline and distillates for each month, in gallons;
 - b. the rolling, 12-month summation of the monthly gasoline and distillates throughout, in gallons;
 - c. the total individual HAP, combined HAPs, and VOC emissions from this emissions unit, in tons;
 - d. the total individual HAP, combined HAPs, and VOC emissions from this emissions unit, in tons per rolling, 12-month summation;
 - e. the total individual HAP, combined HAPs, and VOC emissions from J001-two bay truck loading rack, T001-Tank 10, T002, Tank 11, T004-Tank 21, T005-Tank 22, T006-Tank 30, T007-Tank 20, T008-Tank 3, T009-Tank 4, T010-Tank 6, and T011-Tank 53, combined, in tons; and
 - f. the total individual HAP, combined HAPs, and VOC emissions from J001-two bay truck loading rack, T001-Tank 10, T002, Tank 11, T004-Tank 21, T005-Tank 22, T006-Tank 30, T007-Tank 20, T008-Tank 3, T009-Tank 4, T010-Tank 6, and T011-Tank 53, combined, in tons per rolling, 12-month summation.
2. The permittee shall implement, within 90 days of the issuance of this permit, a preventive maintenance program (program) for the McGill VRU which has been approved by the CDO. The program shall include an annual inspection of the VRU by a qualified individual trained in the operation and inspection of carbon adsorption-absorption systems. The resultant report shall be maintained on site and shall be made available during subsequent inspections by the CDO.
3. The permittee shall maintain the data required by the VRU manufacturer's recommended daily operating guidelines on a daily basis. The permittee shall submit a checklist for such data to the CDO within 90 days of the final issuance of this permit. Any subsequent changes to this checklist shall be mutually agreeable to the permittee and the CDO.
4. The permittee shall collect and record the following information for each day for the VRU:

- a. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation;
 - b. during the regeneration cycle, the vacuum pressure, in inches Hg;
 - c. the gasoline supply temperature, in degrees F;
 - d. the absorber pressure, in psi; and
 - e. the carbon bed temperatures at all levels, in degrees F.
5. The permit to install for emission unit J001 was evaluated based on the actual materials and the design parameters of the emission unit and facility's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by emission unit J001 using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Gasoline

TLV (mg/m³): 300 ppm = 883 mg/m³

Maximum Hourly Emission Rate (lbs/hr): 3.48 lbs/hr

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³):8735

MAGLC (ug/m³): 21,023

Physical changes to or changes in the method of operation of the emissions unit or facility exhaust after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of or use of materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;

Shell C

PTI A

Emissions Unit ID: J001

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- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or the facility exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
6. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the following:
 - a. the rolling, 12-month limitation on the throughput of gasoline and distillates;
 - b. the rolling, 12-month emission limitations for VOC, individual HAP and/or combined HAPs.

The reports shall also document the cause of each exceedance and provide an explanation of any corrective actions which have been taken or will be taken to prevent a similar exceedance in the future.

If no deviations occurred during the 3-month period, the permittee shall submit a quarterly report which states that no deviations occurred during that 3-month period. The quarterly deviation reports shall be submitted in accordance with the reporting requirements specified in Part I-General Term and Condition A.1.c.ii.

2. The permittee shall submit semi-annual deviation (excursion) reports that identify all parameter readings that are outside of the acceptable range for each VRU key operating parameter established in B.9 above. Each report shall include a written description of why the unacceptable reading occurred, and shall provide an explanation of any action taken or required to correct the unacceptable reading. These reports shall be submitted by February 15 and August 15 of each year, and shall address the data obtained during the previous six-month calendar period (January through June, July through December, respectively).
3. The permittee shall submit annual reports of the total throughput, in gallons, of gasoline, distillates, and transmix, for this facility and the estimated total VOC, individual HAP, and combined HAPs emissions from this facility. Each report shall be submitted by April 15 of each year, shall address the data obtained for the previous calendar year (January through December), and shall include the calculations for the estimated emissions.

E. Testing Requirements

1. Compliance with the emission limitations in Section A of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:
VOC emissions shall not exceed 28.83 lbs/hr.

Applicable Compliance Method:
Compliance shall be demonstrated by summing the fugitive emissions and VRU emissions.

The fugitive emissions are calculated by summing the distillate and gasoline emissions. The fugitive distillate emissions are calculated by multiplying the maximum loading rate of 17,800 gals/hr by the emission factor of 0.019 lb/1000 gals. The fugitive gasoline emissions are calculated by multiplying the maximum loading rate of 80,000 gals/hr (application submitted 08/18/03) by the loading loss emission factor of 5.2149 lbs/1000 gals (AP-42, 5.2-4, 01/95) by the uncaptured emissions (1-0.987)(AP-42, 5.2-6, 12/15/95). The emission factor of 5.2149 lbs/1000 gal was derived from the following equation specified in AP-42, 5.2-4, 01/95 and the application submitted 08/13/03:

$$\text{Loading Loss} = 12.46(\text{SPM}/T)$$

where S = saturation factor = 0.6
P = true vapor pressure at avg temp, psia = 5.65
M = molecular weight of vapors, lb/lb-mol = 63.39
T = temperature of product loaded, degrees Rankine

The controlled emissions are calculated multiplying the maximum loading rate of 80,000 gals/hr by the VRU outlet emission rate of 0.013 lbs/1000 gals (Stack test performed 07/24/01) by the captured emissions 0.987(AP-42, 5.2-6, 12/15/95).

- b. Emission Limitation:
VOC emissions shall not exceed 66.4 tons/year.

Applicable Compliance Method:
Compliance shall be demonstrated by summing the fugitive emissions and VRU emissions.

The fugitive emissions are calculated by summing the distillate and gasoline emissions. The fugitive distillate emissions are calculated by multiplying the loading rate as specified in C.1.b above by the emission factor of 0.019 lb/1000 gals and divide by 2000 lbs/ton.

Shell Oil Products US Cols East Terminal

PTI A

Issued

Facility ID: 0125040138

Emissions Unit ID: **J001**

The fugitive gasoline emissions are calculated by multiplying the loading rate as specified in

Shell C

PTI A

Emissions Unit ID: J001

Issued: To be entered upon final issuance

C.1.b above by the emission factor of 5.2149 lbs/1000 gals (AP-42, 5.2-4, 01/95) by the uncaptured emissions (1-0.987)(AP-42, 5.2-6, 12/15/95) and divide by 2000 lbs/ton. The emission factor of 5.2149 lbs/1000 gal was derived from the following equation specified in AP-42, 5.2-4, 01/95 and the application submitted 08/13/03:

$$\text{Loading Loss} = 12.46(\text{SPM/T})$$

where S = saturation factor = 0.6

P = true vapor pressure at avg temp, psia = 5.65

M = molecular weight of vapors, lb/lb-mol = 63.39

T = temperature of product loaded, degrees Rankine

The controlled emissions are calculated multiplying the loading rate as specified in C.1.b above by the VRU outlet emission rate of 0.013 lbs/1000 gals (Stack test performed 07/24/01) by the captured emissions 0.987(AP-42, 5.2-6, 12/15/95) and divide by 2000 lbs/ton.

- c. Emission Limitation:
0.29 lb VOC/1000 gallons of gasoline loaded into a delivery vessel ("gasoline" includes ethanol and additives)

Applicable Compliance Method:

Compliance shall be demonstrated through emission testing performed in accordance with OAC rule 3745-21-10(E).

The emission test methods and procedures are those outlined in OAC rule 3745-21-10(E), and specify a minimum of one 6-hour test during which at least 345,600 gallons of gasoline are loaded. (The test should be conducted at the maximum gasoline throughput possible).

Within 2.5 years of issuance of this permit, the permittee shall conduct or have conducted, an emission test(s) for this emission unit in order to demonstrate compliance with the allowable VOC emission rate. This test shall be done between the months of May through September.

No later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA CDO. 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, 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 CDO's refusal to accept the results of the emission test(s).

Shell C

PTI A

Issued: To be entered upon final issuance

Emissions Unit ID: J001

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the test(s) and submitted to the Ohio EPA, CDO within 30 days following completion of the test(s).

- d. Emission Limitation:
VOC emissions from emissions units J001-two bay truck loading rack, T001-Tank 10, T002, Tank 11, T004-Tank 21, T005-Tank 22, T006-Tank 30, T007-Tank 20, T008-Tank 3, T009-Tank 4, T010-Tank 6, and T011-Tank 53, combined, shall not exceed 99.0 tons per rolling, 12-month summation (including fugitive emissions).

Applicable Compliance Method:

Compliance may be demonstrated by summing the loading rack VOC emission rate calculated in E.1.b and the total actual VOC emissions from all other emissions units at the facility.

To calculate the VOC emissions from the other emissions units at the facility for each rolling, 12-month period, the permittee shall comply with the following:

- i. VOC emissions from the storage tanks shall be determined using the latest version of USEPA's "Tanks" program;
 - ii. the VOC emissions from fugitive emissions (i.e., valves, flanges, open ended lines, and pumps) shall be determined using EPA-453/R-95-017, "Protocol for Equipment Leak Emission Estimates."; and
 - iii. the VOC emissions from gasoline truck loading shall be determined using the most recent VOC stack test results and a vapor tightness loss rate of 1.3% from the trucks. The 1.3% leakage rate is determined by subtracting the controlled emissions from the total emissions (100% - 98.7%) based on the average leakage from a truck passing the 3-inch pressure decay test (USEPA, "Transportation and Marketing of Petroleum Liquids", 12/15/95, Ap-42,5.2-7).
- e. Emission Limitation:

Emissions Unit ID: **J001**

Individual hazardous air pollutant (HAP) emissions and combined HAPs emissions from emissions units J001-two bay truck loading rack, T001-Tank 10, T002, Tank 11, T004-Tank 21, T005-Tank 22, T006-Tank 30, T007-Tank 20, T008-Tank 3, T009-Tank 4, T010-Tank 6, and T011-Tank 53, combined shall not exceed 9.0 tons and 24.0 tons per rolling, 12-month summation, respectively.

Applicable Compliance Method:

Compliance may be demonstrated by the for each individual HAP, multiply the following emission factor by the actual annual VOC emission rate for each rolling, 12-month period (in tons per year) for all VOC emissions from the facility, including fugitive emissions. These emission factors are based on the weight fraction of each HAP in gasoline. Speciated emissions were estimated based on equations found in AP-42, 5th Edition, Section 7.1.4, Hazardous Air Pollutant Speciation Methodology.

- Benzene - 18.0 lbs per ton of VOC
- Ethyl benzene - 2 lbs per ton of VOC
- Hexane - 32.0 lbs per ton of VOC
- Toluene - 26.0 lbs per ton of VOC
- Xylenes - 10.0 lbs per ton of VOC
- 2,2,4-Trimethylpentane - 16.0 lbs per ton VOC
- MTBE - 140.0 lbs per ton of VOC

The permittee has submitted an alternative acceptable method for calculating the HAP(s) content in gasoline. The method is specified in the PTI application submitted 08/18/03 and supplemental information submitted 12/17/03. The method utilizes the vapor pressure coefficients, vapor pressure calculations, and average liquid percent for HAP constituents. In addition, it incorporates site-specific temperature data and product molecular weights.

Should additional more accurate emission factors be developed during the current permit cycle, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA and the permittee.

F. Miscellaneous Requirements

1. The following terms and conditions of this permit are federally enforceable requirements: A, B, C.1-4, D and E.

Shell C

PTI A

Emissions Unit ID: T001

Issued: To be entered upon final issuance

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
T001 - 592,200 gallon internal floating roof above ground gasoline storage tank (Tank 10)	OAC rule 3745-31-05(A)(3) OAC rule 3745-21-09 (L) 40 CFR Part 60 Subpart Kb	VOC emissions shall not exceed 1.6 tons/year. See A.2.a-c and C.1 below. See A.2.a-c, C.1 and D.1 below.

2. Additional Terms and Conditions

- 2.a The storage tank shall be equipped with an internal floating roof.
- 2.b The automatic bleeder vents shall be closed at all times, except when the roof is floated off or landed on the roof leg supports; and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.
- 2.c All openings, except stub drains, shall be equipped with a cover, seal or lid, which is in the closed position at all times, except when in actual use for tank gauging or sampling.

B. Operational Restrictions

None

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain records of the following information:

Issued

Emissions Unit ID: T001

- a. the types of petroleum liquids stored in the tank;
- b. the period of storage for each respective petroleum liquid; and
- c. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid.

D. Reporting Requirements

1. If the permittee places, stores, or holds in the floating roof tank any petroleum liquid with a true vapor pressure which is greater than 11.11 pounds per square inch absolute, such tank does not comply with the requirements of paragraph (L)(1) of OAC rule 3745-21-09, or the requirements of 40 CFR Part 60.116b(a-d) do not apply, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

E. Testing Requirements

1. Compliance with the emission limitations in Section A of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation:
VOC emissions shall not exceed 1.6 tons/yr.

Applicable Compliance Method:
The permittee may demonstrate compliance through AP-42, Chapter 7, Liquid Storage Tanks, September 1997 or USEPA's TANKS 4.0 program.

F. Miscellaneous Requirements

None