State of Ohio Environmental Protection Agency

RE: FINAL PERMIT TO INSTALL **CERTIFIED MAIL**
LUCAS COUNTY

Street Address:
122 S. Front Street

Lazarus Gov. Center **TELE:** (614) 644-3020 **FAX:** (614) 644-2329

Mailing Address:
Lazarus Gov. Center
P.O. Box 1049

Application No: 04-01442
Fac ID: 0448010133
DATE: 9/12/2006

Perstorp Polyols Inc
Anthony Sloma
600 Matzinger Rd
Toledo, OH 43612

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

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.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of $70.00 which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

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

Sincerely,

Michael W. Ahern

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

CC: **USEPA** **TDES**

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install	**Issue Date: 9/12/2006**
Terms and Conditions	**Effective Date: 9/12/2006**

FINAL PERMIT TO INSTALL 04-01442

Application Number:	04-01442
Facility ID:	0448010133
Permit Fee:	**$1400**
Name of Facility:	Perstorp Polyols Inc
Person to Contact:	Anthony Sloma
Address:	600 Matzinger Rd Toledo, OH 43612

Location of proposed air contaminant source(s) [emissions unit(s)]:
600 Matzinger Rd
Toledo, **Ohio**

Description of proposed emissions unit(s):
construction of new formaldehyde plant (formox no. 2).

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

Joseph P. Koncelik

Director

Part I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Permit-To-Install General Terms and Conditions

1. Monitoring and Related Recordkeeping and Reporting Requirements

a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

i. The date, place (as defined in the permit), and time of sampling or measurements.

ii. The date(s) analyses were performed.

iii. The company or entity that performed the analyses.

iv. The analytical techniques or methods used.

v. The results of such analyses.

vi. The operating conditions existing at the time of sampling or measurement.

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

c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to

the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.9 below if no deviations occurred during the quarter.

iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

iv. If this permit is for an emissions unit located at a Title V facility, then each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

d. The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

2. Scheduled Maintenance/Malfunction Reporting

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

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

3. Risk Management Plans

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

4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

6. General Requirements

a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification

b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c. This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d. This permit does not convey any property rights of any sort, or any exclusive privilege.

e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

7. Fees

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

8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

9. Compliance Requirements

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

b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.

iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

10. Permit-To-Operate Application

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 <u>obtained before</u> the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this permit 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.

11. 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.

12. 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.

13. Permit-To-Install

A permit-to-install must be obtained pursuant to OAC Chapter 3745-31 prior to "installation" of "any air contaminant source" as defined in OAC rule 3745-31-01, or "modification", as defined in OAC rule 3745-31-01, of any emissions unit included in this permit.

B. State Only Enforceable Permit-To-Install General Terms and Conditions

1. Compliance Requirements

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

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the 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 state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the

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 (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. 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.

4. Authorization To Install or Modify

If applicable, authorization to install or modify any new or existing emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or 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.

5. Construction of New Sources(s)

This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the

permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

6. 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.

7. Applicability

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

8. Construction Compliance Certification

If applicable, the applicant shall provide Ohio EPA with a written certification (see enclosed form if applicable) 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.

9. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

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

C. Permit-To-Install Summary of Allowable Emissions

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

Pollutant	Tons Per Year
CO	7.10
VOC	30.1

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions

None

B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions

None

Emissions Unit ID: P813

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. 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.

Operations, Property, and/or Equipment - (P813) - air oxidation formaldehyde manufacturing process controlled by catalytic incinerator

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	From Process: 1.62 lb/hr of carbon monoxide (CO) (stack) 7.10 tpy of CO (stack) 5.8 lbs/hr volatile organic compounds (VOC) (stack) 25.4 tpy VOC (stack) 2.9 tpy VOC (fugitive equipment leaks) See Section A.I.2.a below.
OAC rule 3745-21-09(EE)	See Section A.I.2.b below.
OAC rule 3755-21-09(DD)	See Section A.I.2.c below.
40 CFR Part 60, Subpart VV	See Section A.I.2.d below.
40 CFR Part 60, Subpart III	See Sections A.I.2.b and A.I.2.e below.
40 CFR Part 63, Subparts A.F,G and H	See Sections A.I.2.e and A.I.2.f below.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subparts III and VV, 40 CFR Part 63, Subparts A, F, G and H, OAC rule 3745-21-09(DD) and (EE).

2.b The process vent stream from this emissions unit shall be vented to a combustion device that is designed and operated either to reduce the VOC emissions vented to it with an efficiency of at least 98%, by weight, or emit VOC at a concentration less than 20 ppm, by volume, on a dry basis.

2.c The permittee shall comply with the VOC leak detection and repair program requirements of OAC rule 3745-21-09(DD) by maintaining compliance with the operational restrictions, monitoring, record keeping and reporting requirements of 40 CFR Part 63, Subpart H for all VOC process equipment leaks.

2.d The permittee shall comply with the VOC leak detection and repair program requirements of 40 CFR Part 60, Subpart VV by maintaining compliance with the operational restrictions, monitoring, record keeping and reporting requirements of 40 CFR Part 63, Subpart H for all VOC process equipment leaks.

2.e The permittee shall comply with the VOC restrictions of 40 CFR Part 60, Subpart III by maintaining compliance with the operational restrictions, monitoring, record keeping and reporting requirements of 40 CFR Part 63, Subpart G for all air oxidation process vents.

2.f The permittee shall comply with all applicable requirements of 40 CFR Part 63, Subparts A, F, G, and H.

II. Operational Restrictions

1. The permittee shall not employ water pumped from the Ottawa River to use as non-contact cooling water in this emissions unit.

2. The average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit (28 degrees Celsius) below the average temperature during the most recent emission test that demonstrated the emission unit was in compliance. The average temperature across the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain daily records that document any time periods when water pumped from the Ottawa River was used as non-contact cooling water in this emissions unit.

2. The permittee shall install, operate, and maintain continuous temperature monitors and recorder(s) which measure and record the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be

capable of accurately measuring the desired parameter. The temperature monitors and records shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

3. The permittee shall collect and record the following information each day:

a. all 3-hour blocks of time, when the emissions unit was in operation, during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance; and

b. all 3-hour blocks of time, when the emissions unit was in operation, during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference maintained during the most recent emissions test that demonstrated the emissions unit to be in compliance; and

4. The permittee shall keep a log or record of the operating time for the capture (collection) system, catalytic incinerator, monitoring equipment, and the associated emissions unit.

IV. Reporting Requirements

1. The permittee shall notify the Toledo Division of Environmental Services, in writing, of any daily record showing that water pumped from the Ottawa River was used as non-contact cooling water in this emissions unit. The notification shall include a copy of such record and shall be sent to the Toledo Division of Environmental Services within 30 days after the event occurs.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all 3-hour blocks of time when the emissions unit was in operation during which the average temperature of the exhaust gases immediately before the catalyst bed or the average temperature difference across the catalyst bed did not comply with the temperature limitations specified above.

3. 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. If no deviations occurred in the calendar quarter, the permittee shall submit a quarterly

report, which states that no deviations occurred during the preceding 3-month period.

4. The permittee shall submit quarterly summary reports that include a log of all periods of downtime for the capture system, catalytic incinerator, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by April 30, July 31, October 31, and January 31 of each year and shall cover the previous calender quarter.

V. Testing Requirements

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

a. Emission Limitation:

1.62 lbs/hr of CO (stack)

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 10. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

b. Emission Limitation:

7.10 tpy of CO (stack)

Applicable Compliance Method:

The annual emission limitation was determined by multiplying the hourly allowable emission limitation (1.62 lbs/hr) by the maximum number of hours of operation (8,760 hrs/yr), and then dividing by 2,000 pounds per ton. Therefore, compliance with the hourly emission limitation constitutes compliance with the annual emission limitation.

c. Emission Limitation:

5.8 lbs/hr of VOC (stack)

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures specified in OAC rule 3745-21-10(C). Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

d. Emission Limitation:

25.4 tpy of VOC (stack)

Applicable Compliance Method:

The annual emission limitation was determined by multiplying the hourly allowable emission limitation (5.8 lbs/hr) by the maximum number of hours of operation (8,760 hrs/yr), and then dividing by 2,000 pounds per ton. Therefore, compliance with the hourly emission limitation constitutes compliance with the annual emission limitation.

e. Emission Limitation:

2.9 tpy of VOC (fugitive equipment leaks)

Applicable Compliance Method:

Compliance shall be demonstrated by using the emission factors from "Protocol for Equipment Leak Emission Estimates" EPA-453/R-95-017 November 1995 Table 2-5, or other approved alternate method, and the number of pumps, valves, flanges, etc. to calculate the pounds per hour of fugitive VOC emissions. The annual fugitive VOC emissions (in tons) shall be calculated by multiplying pounds per hour emission rate from all pumps, valves, flanges, etc. by the annual hours of operation of the equipment and dividing by 2000 pounds per ton.

f. Emission Limitation:

Reduction of VOC emissions by at least 98% or emit VOC at reduction of less than 20 ppm by volume, dry basis.

Applicable Compliance Method

Compliance shall be demonstrated based on the results of emission testing conducted in accordance with the procedures specified under OAC rule 3745-21-10(C).

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

a. The emissions testing shall be conducted within 180 days after the effective date of this permit.

b. The emission testing shall be conducted to demonstrate compliance with the control efficiency limitation (or discharge concentration) and the allowable mass emission rates for VOC and organic hazardous air pollutants.

c. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 63 Subpart G and OAC rule 3745-21-10(C). The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

d. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Toledo Division of Environmental Services.

e. Not later than 30 days prior to the proposed test dates, the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the times and dates of the tests, and the persons who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Director's refusal to accept the results of the emission tests.

f. Personnel from the Toledo Division of Environmental Services shall be permitted to witness the tests, 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 tests shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the tests. The permittee may request additional time for the submission of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

VI. Miscellaneous Requirements

1. The permittee has proposed two construction options to increase formaldehyde production at this facility. Two permits to install will be issued to authorize these options. Should the permittee elect to construct the equipment option of this permit,

construction shall not be allowed under PTI 04-1397. At least 30 days prior to startup of this equipment the permittee shall request in writing the withdrawal of PTI 04-01397.

Issued: 9/12/2006

B. State Only Enforceable Section

I. 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.

Operations, Property, and/or Equipment - (P813) - air oxidation formaldehyde manufacturing process controlled by catalytic incinerator

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Emissions Unit ID: T104

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. 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.

Operations, Property, and/or Equipment - (T104) - internal floating roof storage tank for methanol

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	0.87 tpy VOC
40 CFR Part 60, Subpart Kb	See Section A.2.a. below.
40 CFR Part 63, Subparts A. F, G and H	See Section A.I.2.b below.

2. Additional Terms and Conditions

2.a [63.110(b)(1)] A storage vessel that is also subject to the provisions of 40 CFR Part 60, Subpart Kb is required to comply only with the provisions of 40 CFR Part 63, Subpart G.

2.b The requirements of this rule also include compliance with the requirements of 40 CFR Part 63 Subparts G and H.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

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

a. the types of organic liquids stored in the tank;

b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid; and

c. the throughput of the organic liquids stored in the tank (in gallons per rolling, 12-month period).

Issued: 9/12/2006

IV. Reporting Requirements

None.

V. Testing Requirements

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

a. Emission Limitation:

0.87 tpy of VOC

Applicable Compliance Method:

Compliance shall be demonstrated by a one time emissions calculation utilizing USEPA's "Tanks Program 4.0" or subsequent versions, the maximum number of turnovers per year (365), and the destruction efficiency of the catalytic incinerator (98%) . AP-42, Section 7.1 (9/97 version or later) may be used in lieu of "Tanks Program 4.0."

VI. Miscellaneous Requirements

None

Issued: 9/12/2006

B. State Only Enforceable Section

I. 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.

Operations, Property, and/or Equipment - (T104) - internal floating roof storage tank for methanol, no controls

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Issued: 9/12/2006

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. 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.

Operations, Property, and/or Equipment - (T108) - internal floating roof storage tank for methanol

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	0.87 tpy of volatile organic compounds (VOC)
40 CFR Part 60, Subpart Kb	See section A.I.2.a.below.
40 CFR Part 63, Subparts A. F, G and H	See section A.I.2.c below.

2. Additional Terms and Conditions

2.a [63.110(b)(1)] A storage vessel that is also subject to the provisions of 40 CFR Part 60, Subpart Kb is required to comply only with the provisions of 40 CFR Part 63, Subpart G.

2.b The permittee shall comply with all applicable requirements of 40 CFR 63, Subparts A, F, G, and H.

2.c The requirements of this rule also include compliance with the requirements of 40 CFR Part 60 Subpart Kb, and 40 Part 63 Subparts A, F, G and H.

II. Operational Restrictions

None.

III. Monitoring and/or Record keeping Requirements

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

a. the types of organic liquids stored in the tank;

b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid; and

c. the throughput of the organic liquids stored in the tank (in gallons per rolling, 12-month period).

IV. Reporting Requirements

None.

V. Testing Requirements

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

a. Emission Limitation:

0.87 tpy of VOC

Applicable Compliance Method:

Compliance shall be demonstrated by a one time emissions calculation utilizing USEPA's "Tanks Program 4.0" or subsequent versions, the maximum number of turnovers per year (365). AP-42, Section 7.1 (9/97 version or later) may be used in lieu of "Tanks Program 4.0."

VI. Miscellaneous Requirements

1. The terms and conditions in this Permit to Install supercede all requirements for this emissions unit contained in PTI 04-1043.

Issued: 9/12/2006

B. State Only Enforceable Section

I. 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.

Operations, Property, and/or Equipment - (T108) - internal floating roof storage tank for methanol, no controls

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Issued: 9/12/2006

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. 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.

Operations, Property, and/or Equipment - (T109) - fixed roof storage tank for formaldehyde controlled by a closed vent system with an electrically heated catalytic incinerator

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	0.009 tpy volatile organic compounds (VOC) See section A.I.2.a and d below. See section A.I.2.b below.
40 CFR Part 60, Subpart Kb	See section A.I.2.b below.
40 CFR Part 63, Subpart A, F, G and H	See section A.I.2.c below.

2. Additional Terms and Conditions

2.a The emissions from this emissions unit shall be vented to a catalytic incinerator with a minimum of 98% destruction efficiency or emit a VOC concentration of less than 20 ppm by volume, dry basis.

2.b [63.110(b)(1)] A storage vessel that is also subject to the provisions of 40 CFR Part 60, Subpart Kb is required to comply only with the provisions of 40 CFR Part 63, Subpart G.

2.c The permittee shall comply with all applicable requirements of 40 CFR 63, Subparts A, F, G, and H.

2.d The requirements of this rule also include compliance with the requirements of 40 CFR Part 60 Subpart Kb, and 40 Part 63 Subparts A, F, G and H.

II. Operational Restrictions

1. The average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit (28 degrees Celsius) below the average temperature during the most recent emission test that demonstrated the emission unit was in compliance. The average temperature across the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall operate and maintain continuous temperature monitors and recorders which measure and record the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit is in operation. Units shall be in degrees Fahrenheit or Celsius. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

2. The permittee shall collect and record the following information each day:

a. all 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit ((28 degrees Celsius) below the average temperature during the most recent emission test that demonstrated the emission unit was in compliance;

b. all 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance; and

c. a log of the downtime for the capture (collection system), control device, and monitoring equipment when this emissions unit was in operation.

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

a. the types of organic liquids stored in the tank;

b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid; and

c. the throughput of the organic liquids stored in the tank (in gallons per rolling,

12-month period).

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all 3-hour blocks of time when the emissions unit was in operation during which the average temperature of the exhaust gases immediately before the catalyst bed or the average temperature difference across the catalyst bed did not comply with the temperature limitations specified above.

2. The quarterly deviation reports shall be submitted by April 30, July 31, October 31 and January 31 and shall cover the records for the previous calendar quarters.

3. The permittee shall submit quarterly summary reports that include a log of all periods of downtime for the capture system, catalytic incinerator, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by April 30, July 31, October 31, and January 31 of each year and shall cover the previous calender quarter.

V. Testing Requirements

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

a. Emission Limitation:

0.009 tpy of VOC

Applicable Compliance Method:

Compliance shall be demonstrated by a one time emissions calculation utilizing USEPA's "Tanks Program 4.0" or subsequent versions, the maximum number of turnovers per year (365), and the destruction efficiency of the catalytic incinerator (98%) . AP-42, Section 7.1 (9/97 version or later) may be used in lieu of "Tanks Program 4.0."

b. Emission Limitation:

The emissions from this emissions unit shall be vented to a catalytic incinerator with a minimum of 98% destruction efficiency or emit VOC at reduction of less than 20 ppm by volume, dry basis.

Emissions Unit ID: T109

Applicable Compliance Method:
If required, compliance shall be demonstrated based on the results of emission testing conducted in accordance with the procedures specified under OAC rule 3745-21-10(C).

VI. Miscellaneous Requirements

1. The terms and conditions in this Permit to Install supercede all requirements for this emissions unit contained in PTI 04-1043.

Issued: 9/12/2006

B. State Only Enforceable Section

I. 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.

Operations, Property, and/or Equipment - (T109) - fixed roof storage tank for formaldehyde controlled by a closed vent system with an electrically heated catalytic incinerator

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Issued: 9/12/2006

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. 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.

Operations, Property, and/or Equipment - (T110) - fixed roof storage tank for formaldehyde controlled by a closed vent system with an electrically heated catalytic incinerator

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-0(A)(3)	0.009 tpy VOC See section A.I.2.a and d below.
40 CFR Part 60, Subpart Kb	See section A.I.2.b below.
40 CFR Part 63, Subparts A, F, G and H	See section A.I.2.c below.

2. Additional Terms and Conditions

2.a The emissions from this emissions unit shall be vented to a catalytic incinerator with a minimum of 98% destruction efficiency or emit a VOC concentration of less than 20 ppm by volume, dry basis.

2.b [63.110(b)(1)] A storage vessel that is also subject to the provisions of 40 CFR Part 60, Subpart Kb is required to comply only with the provisions of 40 CFR Part 63, Subpart G.

2.c The permittee shall comply with all applicable requirements of 40 CFR 63, Subparts A, F, G, and H.

2.d The requirements of this rule also include compliance with the requirements of 40 CFR Part 60 Subpart Kb, and 40 Part 63 Subparts A, F, G and H.

II. Operational Restrictions

1. The average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit (28 degrees Celsius) below the average temperature during the most recent emission test that demonstrated the emission unit was in compliance. The average temperature across the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall operate and maintain continuous temperature monitors and recorders which measure and record the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit is in operation. Units shall be in degrees Fahrenheit or Celsius. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

2. The permittee shall collect and record the following information each day:

a. all 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit (28 degrees Celsius) below the average temperature during the most recent emission test that demonstrated the emission unit was in compliance;

b. all 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance; and

c. a log of the downtime for the capture (collection system), control device, and monitoring equipment when this emissions unit was in operation.

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

a. the types of organic liquids stored in the tank;

b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid; and

c. the throughput of the organic liquids stored in the tank (in gallons per rolling, 12-month period).

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all 3-hour blocks of time when the emissions unit was in operation during which the average temperature of the exhaust gases immediately before the catalyst bed or the average temperature difference across the catalyst bed does not comply with the temperature limitation specified above.

2. The 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.

3. The permittee shall submit quarterly summary reports that include a log of all periods of downtime for the capture system, catalytic incinerator, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by April 30, July 31, October 31, and January 31 of each year and shall cover the previous calender quarter.

V. Testing Requirements

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

a. Emission Limitation:

0.009 tpy of VOC

Applicable Compliance Method:

Compliance shall be demonstrated by a one time emissions calculation utilizing USEPA's "Tanks Program 4.0" or subsequent versions, the maximum number of turnovers per year (365), and the destruction efficiency of the catalytic incinerator (98%) . AP-42, Section 7.1 (9/97 version or later) may be used in lieu of "Tanks Program 4.0."

b. Emission Limitation:

The emissions from this emissions unit shall be vented to a catalytic incinerator with a minimum of 98% destruction efficiency or emit VOC at reduction of less than 20 ppm by volume, dry basis.

Applicable Compliance Method:
If required, compliance shall be demonstrated based on the results of emission testing conducted in accordance with the procedures specified under OAC rule 3745-21-10(C).

VI. Miscellaneous Requirements

1. The terms and conditions in this Permit to Install supercede all requirements for this emissions unit contained in PTI 04-01043.

Issued: 9/12/2006

B. State Only Enforceable Section

I. 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.

Operations, Property, and/or Equipment - (T110) - fixed roof storage tank for formaldehyde controlled by a closed vent system with an electrically heated catalytic incinerator

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Emissions Unit ID: T110