OhioEPA

State of Ohio Environmental Protection Agency

Street Address:
Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

TELE: (614) 644-3020 **FAX:** (614) 644-2329

Mailing Address:
Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

RE: FINAL PERMIT TO INSTALL
FRANKLIN COUNTY
Application No: 01-08750

CERTIFIED MAIL

	TOXIC REVIEW
	PSD
Y	**SYNTHETIC MINOR**
	CEMS
	MACT
	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

DATE: 12/16/2003

Capital Resin Corp
Anne Tyler
324 Dering Ave
Columbus, OH 432072956

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 by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 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. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. 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, Ohio 43215

Sincerely,

Michael W. Ahern

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

CC: USEPA CDO

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install	**Issue Date: 12/16/2003**
Terms and Conditions	**Effective Date: 12/16/2003**

FINAL PERMIT TO INSTALL 01-08750

Application Number: 01-08750

APS Premise Number: 0125040238

Permit Fee: **$400**

Name of Facility: Capital Resin Corp

Person to Contact: Anne Tyler

Address: 324 Dering Ave
Columbus, OH 432072956

Location of proposed air contaminant source(s) [emissions unit(s)]:
324 Dering Ave
Columbus, **Ohio**

Description of proposed emissions unit(s):
Reactor number 1.

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

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This 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 emissions unit(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

Pollutant	Tons Per Year
Methanol	0.8
Formaldehyde	0.6
Organic Compounds	11.6

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P004 - Resin reactor R-1 (2,500 gallon) w/condenser, wet scrubber and solid paraformaldehyde handling system connected to emergency containment. Modification of PTI 01-08083 and 01-394.	OAC rule 3745-31-05(A)(3)	Organic compound (OC) emissions shall not exceed 8.0 lbs/hr. Methanol emissions shall not exceed 0.55 lb/batch. Formaldehyde emissions shall not exceed 0.4 lb/batch. See sections A.2.c, B.1, and B.2 below. The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-07(G)(2) and 3745-31-05(D).
	OAC rule 3745-21-07(G)(2)	The emission limitation specified by this rule is equivalent to or less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-31-05(C)	OC emissions shall not exceed 5.8 tons/yr. Methanol emissions shall not exceed 0.4 ton during any rolling, 12-month period. Formaldehyde emissions shall not exceed 0.3 ton during any rolling, 12-month period. See A.2.a, A.2.b and B.3 below.
	OAC rule 3745-35-07(B)	See A.2.e below.

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2. Additional Terms and Conditions

2.a This permit supercedes PTI 01-08083 issued August 10, 2000 and represents a net allowable increase of 0.3 ton methanol per year.

2.b The facility-wide individual and combined hazardous air pollutant (HAP)[1] emissions shall not exceed 9.9 tons and 24.9 tons per rolling, 12-month period, respectively, by limiting the total HAP emissions from all emissions units. The permittee shall restrict total facility OC emissions to less than 99.9 tons per rolling, 12-month period.

[1]A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. Material Safety Data Sheets typically include a listing of the solvents contained in the adhesive/coatings and clean up materials. This information does not have to be kept on a line-by-line basis.

2.c The permittee developed the batch emission limitations based on calculation of maximum "worse case" emission rates to which a 95% control efficiency was applied to yield 0.55 lb methanol during a 9-hour batch cycle during alkoxy modified resins production. During alkoxy/arloxy resin production, the permittee shall vent OC emissions to the wet packed tower impingement scrubber that is designed and operated to reduce the VOC emissions vented to it with an efficiency of at least 95% by weight. Compliance with the hourly and annual emission limitations is assured as long as the permittee complies with the operational restrictions of this permit for parametric monitoring of exhaust gas scrubber pressure drop and daily batch production rates.

2.d The permittee shall, prior to production, ensure that this emissions unit is connected to the Emergency Containment System and that the Emergency Containment System is functional.

If any event causes a rupture disc to open, releasing material to the Emergency Containment System, all resin production shall be stabilized and no new batches will be started or restarted until any necessary repairs are made. The emergency containment system shall be drained and prepared for normal kettle operation prior to production restart.

2.e The facility-wide potential to emit (PTE) for emission units at this facility, following issuance of this permit, will ensure that the HAP/VOC emissions will not exceed the Title V and MACT applicability thresholds of 10 tons individual HAP (Hazardous Air Pollutant), 25 tons total combined HAP emissions and 100 tons VOC per rolling, 12-month period.. Therefore, the permittee, by complying with the federally enforceable terms and conditions for emission units, as listed in the table below, will not be subject to Title V permitting and provisions in either the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Miscellaneous Organic Chemical Manufacturing 40 CFR Part 63 Subpart FFFF and Polymer & Resins III MACT under 40 CFR Part 63 Subpart OOO.

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EU No. (PTI number)	Form. ton/yr	Methanol ton/yr	Phenol ton/yr	Toluene ton/yr	Total HAP ton/yr	VOC ton/yr
P004 (PTI 01-08750)	0.3	0.4	0	0	0.7	5.8
P005 (PTI 01-07332)	0	0	0	0	0	7.0
P006 (PTI 01-06746)	0	0.12	0	0.28	0.28	0.28
P008 (PTI 01-08136)	0.3	0.4	0	0	0.7	5.8
P010 (PTI 01-02069)	1.0	1.0	0	0	2.0	7.5
P012 (PTI 01-08730)	0	0	0	0	1.89	1.89
P013 (PTI 01-06746)	0	0.12	0	0.28	0.28	0.28
P014 (PTI 01-07303)	0.6	0.2	0	0	0.6	0.6
P016 (PTI 01-08750)	0.3	0.4	0	0	0.7	5.8
P018 (PTI 01-06746)	0	1.40	0	0.28	1.40	2.6
P019 (PTI 01-06759)	0.0	0.0	0	0	0	0.4
P020 (PTI 01-06759)	0.4	0.9	0	0	1.3	1.7
P021 (PTI 01-6755)	0	0	0	0	0	3.3
P023 (PTI 01-07449)	0	0	0	0	0	14.1
P024 (PTI 01-06757)	0	0	0	0	0	1.3
P025 (PTI 01-06757)	0	0	0	0	0	1.3
P026 (PTI 01-07882)	0.72	0	0	0	0.72	0.72
Total	3.62	4.94	0	0.84	10.57	60.37

B. Operational Restrictions

1. The temperature of the exhaust gases from the condenser shall exceed 77 degrees Fahrenheit during any period of resin production.

2. The permittee shall maintain the following at all times during alkoxy/arloxy resin production:

   a. the pH of the scrubber liquor between 7 and 9;

   b. the pressure drop across the scrubber between 1 and 4 inches of water; and

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c. the scrubber water flow rate at a value of not less than 120 gallons per minute per cubic feet of gas flow.

3. The permittee shall not complete more than 2 batches of alkoxy/arloxy resins, 4 batches of phenolic resins or 8 batches of melamine-formaldehyde in reactor R-1 during any daily period.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information for each month for this emissions unit:

a. the identification and date of completion for each batch produced;

b. the numbers of each batch produced;

c. the total methanol, formaldehyde and OC emissions; and

d. the rolling, 12-month summation of methanol, formaldehyde and OC emissions.

2. The permittee shall collect and record the following information for each month for the emission units listed in section A.2e above :

a. the individual HAP[1] emissions for each emissions unit at this facility, in pounds or tons;

b. the total combined HAP emissions for each emissions unit at this facility, in pounds or tons;

c. the individual HAP emissions for all emissions units at this facility, in pounds or tons;

d. the total combined HAP emissions for all emissions units at this facility, in pounds or tons;

e. the rolling 12-month summation of individual HAP emissions for all emissions units at the facility, in tons(i.e., the value from the current month added to the summation of the individual HAP emissions from the previous 11 months);

f. the rolling, 12-month summation of the total combined HAP emissions for all emissions units at the facility, in tons (i.e., the value from the current month added to the summation of the total combined HAP emissions from the previous 11 months);

g. the OC emission for each emissions unit at the facility, in pounds or tons; and

h. the rolling 12-month summation of the OC emissions for all emissions units at the facility, in tons (i.e., the value from the current month added t the summation of the OC emissions from the previous 11 months).

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3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the temperature of the exhaust gases from the condenser when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

   The permittee shall collect and record the following information for each day during resin production:

   a. the temperature of the exhaust gases from the condenser during each period of time; and

   b. a log or record of downtime for the control device and monitoring equipment, when the associated emissions unit is in operation.

4. The permittee shall properly install, operate and maintain equipment to continuously monitor and record the pH of the scrubber liquor during production of alkoxy/arloxy modified products. The pH monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

   The permittee shall collect and record the following information during production of alkoxy/arloxy modified products:

   a. the pH of the scrubber liquor;

   b. the pressure drop across the scrubber;

   c. the scrubber water flow rate in gallons per minute per cubic feet of gas flow; and

   d. a log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

D. Reporting Requirements

1. In accordance with paragraph A. 2. b. of the General Terms and Conditions, the permittee shall submit quarterly deviation (excursion) reports of the following:

   a. an identification of all periods of time, during which the temperature of the exhaust gases from the condenser exceeded the temperature limitation specified in section B.1, above;

   b. an identification of all periods of time during alkoxy/arloxy resin production in which any of the following restrictions in B.2 were out of range:

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i. the pH of the scrubber liquor was less than 7 or greater than 9;

ii. the pressure drop across the scrubber was less than 1 or greater than 4 inches of water at all times; and

iii. the scrubber water flow rate was less than 120 gallons per minute per cubic feet of gas flow;

c. identify any exceedances of the daily batch production rates specified in B.3, above;

d. an identification of all exceedances of the rolling, 12-month formaldehyde and methanol emission limitations;

e. an identification of all exceedances of the rolling 12-month individual and combined HAP emission limitations; and

f. an identification of all exceedances of the rolling, 12-month OC emission limitation.

the deviation (excursion) reports shall be submitted in accordance with the requirements specified in General Term and Condition A.2 of this permit.

2. The permittee shall submit an annual report to the Ohio EPA, CDO that identify the total OC emissions emitted from this emissions unit for the previous calendar year. These annual reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

E. Testing Requirements

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

a. Emission Limitation:
Methanol emissions shall not exceed 0.55 lb/batch.

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing to demonstrate compliance with the batch emission rate during alkoxy/arloxy resin production.

i. the emission testing shall be conducted within 6 months of initiating alkoxy/arloxy resin production.

ii. the emission testing shall be conducted to demonstrate compliance with batch emission rate for methanol.

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iii. the following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): 40CFR Part60 Appendix A Method 308 for methanol emission - if applicable. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

iv. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA CDO.

Not later than 30 days prior to the proposed test date, 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 and date of the test, and the persons who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the Ohio EPA CDO, refusal to accept the results of the emission test.

Personnel from the Ohio EPA CDO shall be permitted to witness the test, 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 shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, CDO within 30 days following completion of the test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, CDO.

b. Emission Limitation:
Methanol emissions shall not exceed 0.4 ton per rolling, 12-month period.

Applicable Compliance Method:
This emission limitation was established by using an emission factor of 0.27 lbs methanol/batch melamine resin multiplied by 240 batches per month multiplied by 12 months per year divided by 2,000 lbs/ton. Compliance with this emission limitation shall be demonstrated based upon the record keeping requirements of this permit.

c. Emission Limitation:
Formaldehyde emissions shall not exceed 0.4 lb/batch.

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Applicable Compliance Method:
This emission limitation was established by emission testing during phenolic resin production on November 20, 1997 and during melamine resin production on March 12, 2003. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 308.

d. Emission Limitation:
Formaldehyde emissions shall not exceed 0.3 ton per rolling, 12- month period.

Applicable Compliance Method:
This emissions limitation was established by using an emission factor of 0.4 lb formaldehyde /batch phenol-formaldehyde resin multiplied by 124 batches per month multiplied by 12 months divided by 2,000 lbs/ton. Compliance is ensured, if the permittee demonstrates compliance with the operational restrictions, monitoring and record keeping requirements of this permit.

e. Emissions Limitation:
OC emissions shall not exceed 8.0 lbs/hr.

Applicable Compliance Method:
The permittee shall demonstrate compliance based on emission testing requirements in section E.1.a above.

f. Emission Limitation:
OC emissions shall not exceed 5.8 tons OC per year;

Applicable Compliance Method:
Compliance shall be demonstrated by the record keeping requirements specified in section C.1 of this permit.

g. The individual and combined HAP emissions shall not exceed 9.9 tons and 24.9 tons per rolling, 12-month period, respectively, from all emissions units listed in section A.2e above .

Applicable Compliance Method:
Compliance shall be demonstrated by the record keeping requirements specified in section C.2 of this permit.

h. Emission Limitation:
The total OC emissions shall not exceed 99.9 tons per rolling, 12- month period from all emissions units listed in section A.2e above .

Applicable Compliance Method:

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Compliance shall be demonstrated by the record keeping requirements specified in section C.1 of this permit and the other appropriate sections in those permits as identified in section A.2e above for all the emission units at the facility.

F. Miscellaneous Requirements

1. Modeling to demonstrate compliance with the Ohio EPA's Air Toxic Policy was not necessary since the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant that has a listed TLV to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P016 - Resin reactor R-2 (2,500 gallon) w/condenser, wet scrubber and solid paraformaldehyde handling system connected to emergency containment. Modification of PTI 01-08083 and 01-5797.	OAC rule 3745-31-05(A)(3)	Organic compound (OC) emissions shall not exceed 8.0 lbs/hr. Methanol emissions shall not exceed 0.55 lb/batch. Formaldehyde emissions shall not exceed 0.4 lb/batch. See sections A.2.c, B.1, and B.2 below. The requirements of this rule also include compliance with the requirements of OAC rules 3745-31-05(D) and 3745-21-07(G)(2).
	OAC rule 3745-21-07(G)(2)	The emission limitation specified by this rule is equivalent or less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-31-05(D)	OC emissions shall not exceed 5.8 tons/yr. Methanol emissions shall not exceed 0.4 ton during any rolling, 12-month period. Formaldehyde emissions shall not exceed 0.3 ton during any rolling, 12-month period. See sections A.2.a, A.2.b and B.3 below.
	OAC rule 3745-35-07(B)	See A.2.e below.

2. Additional Terms and Conditions

2.a This permit supercedes PTI 01-08083 issued August 10, 2000 and represents a net allowable increase of 0.3 ton methanol per rolling, 12-month period.

2.b The facility-wide individual and combined hazardous air pollutant (HAP)[1] emissions shall not exceed 9.9 tons and 24.9 tons per rolling, 12-month period, respectively, by limiting the total HAP emissions from all emissions units. The permittee shall restrict total facility OC emissions to less than 99.9 tons per rolling, 12- month period.

[1]A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. Material Safety Data Sheets typically include a listing of the solvents contained in the adhesive/coatings and clean up materials. This information does not have to be kept on a line-by-line basis.

2.c The permittee developed the batch emission limitations based on calculation of maximum "worse case" emission rates to which a 95% control efficiency was applied to yield 0.55 lb methanol during a 9-hour batch cycle during alkoxy modified resins production. During alkoxy/arloxy resin production, the permittee shall vent OC emissions to the wet packed tower impingement scrubber that is designed and operated to reduce the VOC emissions vented to it with an efficiency of at least 95% by weight. Compliance with the hourly and annual emission limitations is assured as long as the permittee complies with the operational restrictions of this permit for parametric monitoring of exhaust gas scrubber pressure drop and daily batch production rates.

2.d The permittee shall, prior to production, ensure that this emissions unit is connected to the Emergency Containment System and that the Emergency Containment System is functional.

If any event causes a rupture disc to open, releasing material to the Emergency Containment System, all resin production shall be stabilized and no new batches will be started or restarted until any necessary repairs are made. The emergency containment system shall be drained and prepared for normal kettle operation prior to production restart.

2.e The facility-wide potential to emit (PTE) for emission units at this facility, following issuance of this permit, will ensure that the HAP/VOC emissions will not exceed the Title V and MACT applicability thresholds of 10 tons individual HAP (Hazardous Air Pollutant), 25 tons total combined HAP emissions and 100 tons VOC per rolling, 12-month period.. Therefore, the permittee, by complying with the federally enforceable terms and conditions for emission units, as listed in the table below, will not be subject to Title V permitting and provisions in either the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Miscellaneous Organic Chemical

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Manufacturing 40 CFR Part 63 Subpart FFFF and Polymer & Resins III MACT under 40 CFR Part 63 Subpart OOO.

EU No. (PTI number)	Form. ton/yr	Methanol ton/yr	Phenol ton/yr	Toluene ton/yr	Total HAP ton/yr	VOC ton/yr
P004 (PTI 01-08750)	0.3	0.4	0	0	0.7	5.8
P005 (PTI 01-07332)	0	0	0	0	0	7.0
P006 (PTI 01-06746)	0	0.12	0	0.28	0.28	0.28
P008 (PTI 01-08136)	0.3	0.4	0	0	0.7	5.8
P010 (PTI 01-02069)	1.0	1.0	0	0	2.0	7.5
P012 (PTI 01-08730)	0	0	0	0	1.89	1.89
P013 (PTI 01-06746)	0	0.12	0	0.28	0.28	0.28
P014 (PTI 01-07303)	0.6	0.2	0	0	0.6	0.6
P016 (PTI 01-08750)	0.3	0.4	0	0	0.7	5.8
P018 (PTI 01-06746)	0	1.40	0	0.28	1.40	2.6
P019 (PTI 01-06759)	0.0	0.0	0	0	0	0.4
P020 (PTI 01-06759)	0.4	0.9	0	0	1.3	1.7
P021 (PTI 01-6755)	0	0	0	0	0	3.3
P023 (PTI 01-07449)	0	0	0	0	0	14.1
P024 (PTI 01-06757)	0	0	0	0	0	1.3
P025 (PTI 01-06757)	0	0	0	0	0	1.3
P026 (PTI 01-07882)	0.72	0	0	0	0.72	0.72
Total	3.62	4.94	0	0.84	10.57	60.37

B. Operational Restrictions

1. The temperature of the exhaust gases from the condenser shall not exceed 77 degrees Fahrenheit, during any period of time during resin production.

2. The permittee shall maintain the following at all times during alkoxy/arloxy resin production:

   a. the pH of the scrubber liquor between 7 and 9;

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b. the pressure drop across the scrubber between 1 and 4 inches of water; and

c. the scrubber water flow rate at a value of not less than 120 gallons per minute per cubic feet of gas flow.

3. The permittee shall not complete more than 2 batches of alkoxy/arloxy resins, 4 batches of phenolic resins or 8 batches of melamine-formaldehyde in reactor R-2 during any daily period.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information for each month for this emissions unit:

a. the identification and date of completion for each batch produced;

b. the numbers of each batch produced;

c. the total methanol, formaldehyde and OC emissions; and

d. the rolling, 12-month summation of methanol, formaldehyde and OC emissions.

2. The permittee shall collect and record the following information for each month for the emission units listed in section A.2e above :

a. the individual HAP[1] emissions for each emissions unit at this facility, in pounds or tons;

b. the total combined HAP emissions for each emissions unit at this facility, in pounds or tons;

c. the individual HAP emissions for all emissions units at this facility, in pounds or tons;

d. the total combined HAP emissions for all emissions units at this facility, in pounds or tons;

e. the rolling 12-month summation of individual HAP emissions for all emissions units at the facility, in tons (i.e., the value from the current month added to the summation of the individual HAP emissions from the previous 11 months);

f. the rolling, 12-month summation of the total combined HAP emissions for all emissions units at the facility, in tons (i.e., the value from the current month added to the summation of the total combined HAP emissions from the previous 11 months);

g. the OC emission for each emissions unit at the facility, in pounds or tons; and

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h. the rolling 12-month summation of the OC emissions for all emissions units at the facility, in tons (i.e., the value from the current month added t the summation of the OC emissions from the previous 11 months).

3. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the temperature of the exhaust gases from the condenser when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be within $\pm$ 1 percent of the temperature being measured or $\pm$ 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

   The permittee shall collect and record the following information for each day during resin production:

   a. the temperature of the exhaust gases from the condenser during each period of time; and

   b. a log or record of downtime for the control device and monitoring equipment, when the associated emissions unit is in operation.

4. The permittee shall properly install, operate and maintain equipment to continuously monitor and record the pH of the scrubber liquor during alkoxy/arloxy resin modified products. The pH monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

   The permittee shall collect and record the following information for each batch of alkoxy/arloxy resin modified products:

   a. the pH of the scrubber liquor;

   b. the pressure drop across the scrubber;

   c. the scrubber water flow rate in gallons per minute per cubic feet of gas flow; and

   d. a log or record of operating time for the capture (collection) system.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which include the following information:

   a. identify all periods of time during resin production in which the temperature of the exhaust gases from the condenser exceeded the temperature limitation specified in section B.1;

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b. an identification of all periods of time during alkoxy/arloxy resin production in which any of the following restrictions in B.2 were out of range:

i. the pH of the scrubber liquor was less than 7 or greater than 9;

ii. the pressure drop across the scrubber was less than 1 or greater than 4 inches of water at all times; and

iii. the scrubber water flow rate was less than 120 gallons per minute per cubic feet of gas flow;

c. identify any exceedances of the daily batch production rates specified in B.3, above;

d. an identification of all exceedances of the rolling, 12-month formaldehyde and methanol emission limitations;

e. an identification of all exceedances of the rolling 12-month individual and combined HAP emission limitations; and

f. an identification of all exceedances of the rolling, 12-month OC emission limitation.

2. These deviation (excursion) reports shall be submitted in accordance with the requirements specified in General Term and Condition A.2 of this permit.

3. The permittee shall submit annual reports to the Ohio EPA, Central District Office which summarizes the methanol, formaldehyde and total HAP emitted from this emissions unit. These annual reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

E. Testing Requirements

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

a. Emission Limitation:
Methanol emissions shall not exceed 0.55 lb/batch.

Applicable Compliance Method:
Compliance with the batch methanol emission limitation may be demonstrated by summing the calculated uncontrolled methanol emission rate 0f 10.973 lbs multiplied by the control efficiency of the scrubber (1 - 0.95) equal 0.549 lb/batch.

b. Emission Limitation:
Methanol emissions shall not exceed 0.4 ton per rolling, 12-month period.

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Applicable Compliance Method:
Compliance with the annual methanol emission limitation may be demonstrated by using an emission factor of 0.27 lbs methanol/batch melamine resin multiplied by 240 batches per month and multiplied by 12 months per year and divided by 2,000 lbs/ton. Compliance is ensured, if the permittee demonstrates compliance with the operational restrictions, monitoring and record keeping requirements of this permit.

c. Emission Limitation:
Formaldehyde emissions shall not exceed 0.4 lb/batch.

Applicable Compliance Method:
This emission limitation was established by emission testing during phenolic resin production on November 20, 1997 and during melamine resin production on March 12, 2003. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 308.

d. Emission Limitation:
Formaldehyde emissions shall not exceed 0.3 ton per rolling, 12- month period.

Applicable Compliance Method:
This emissions limitation was established by using an emission factor of 0.4 lb formaldehyde /batch phenol-formaldehyde resin multiplied by 124 batches per month multiplied by 12 months divided by 2,000 lbs/ton. Compliance is ensured, if the permittee demonstrates compliance with the operational restrictions, monitoring and record keeping requirements of this permit.

e. Emissions Limitation:
OC emissions shall not exceed 8.0 lbs/hr.

Applicable Compliance Method:
The permittee shall demonstrate compliance based on emission testing requirements in section E.1.a above.

d. Emission Limitation:
OC emissions shall not exceed 5.8 tons OC per year;

Applicable Compliance Method:
Compliance shall be demonstrated by the record keeping requirements of this permit.

g. The individual and combined HAP emissions shall not exceed 9.9 tons and 24.9 tons per rolling, 12-month period, respectively, from all emissions units listed in section A.2e above .

Applicable Compliance Method:

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Compliance shall be demonstrated based upon the record keeping requirements in section C.2 of this permit.

h. Emission Limitation:
The total OC emissions shall not exceed 99.9 tons per rolling, 12-month period from all emissions units listed in section A.2e above .

Applicable Compliance Method:
Compliance shall be demonstrated by the record keeping requirements specified in section C.1 of this permit and the other appropriate sections in those permits as identified in section A.2e above for all the emission units at the facility.

F. Miscellaneous Requirements

1. Modeling to demonstrate compliance with the Ohio EPA's Air Toxic Policy was not necessary since the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant that has a listed TLV to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

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