



Environmental Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

2/29/2012

Mr. Frank Simcic
Hukill Chemical Corporation
7013 Krick Rd
Bedford, OH 44146-4493

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 1318030172
Permit Number: P0108723
Permit Type: Initial Installation
County: Cuyahoga

Certified Mail

No	TOXIC REVIEW
No	PSD
Yes	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
Yes	SYNTHETIC MINOR TO AVOID TITLE V
Yes	FEDERALLY ENFORCABLE PTIO (FEPTIO)
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

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

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

If you have any questions, please contact Cleveland Division of Air Quality at (216)664-2297 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. This permit can be accessed electronically on the DAPCWeb page, www.epa.ohio.gov/dapc, by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

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

Cc: CDAQ



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for
Hukill Chemical Corporation**

Facility ID:	1318030172
Permit Number:	P0108723
Permit Type:	Initial Installation
Issued:	2/29/2012
Effective:	2/29/2012
Expiration:	2/28/2017



Division of Air Pollution Control
Permit-to-Install and Operate
for
Hukill Chemical Corporation

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Authorization

Facility ID: 1318030172

Application Number(s): A0026604, A0042555, A0042558

Permit Number: P0108723

Permit Description: Initial permit for new emissions units P018 (loading rack with vapor balance system) and P019 (dryer with condenser). The permit also includes existing emissions units P007 (East pad loading rack), P008 (reclaim loading rack), P009 and P010 (thin film evaporators), and P011 (batch distillation) where no PTI had previously been issued for these emissions units. Voluntary limits are taken to keep facility-wide emissions (single and combined HAP) under Title V limits.

Permit Type: Initial Installation

Permit Fee: \$950.00

Issue Date: 2/29/2012

Effective Date: 2/29/2012

Expiration Date: 2/28/2017

Permit Evaluation Report (PER) Annual Date: Apr 1 - Mar 31, Due May 15

This document constitutes issuance to:

Hukill Chemical Corporation
7013 Krick Rd
Bedford, OH 44146

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

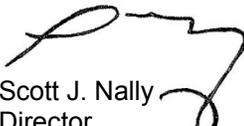
Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Cleveland Division of Air Quality
2nd Floor
75 Erieview Plaza
Cleveland, OH 44114
(216)664-2297

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency


Scott J. Nally
Director



Authorization (continued)

Permit Number: P0108723

Permit Description: Initial permit for new emissions units P018 (loading rack with vapor balance system) and P019 (dryer with condenser). The permit also includes existing emissions units P007 (East pad loading rack), P008 (reclaim loading rack), P009 and P010 (thin film evaporators), and P011 (batch distillation) where no PTI had previously been issued for these emissions units. Voluntary limits are taken to keep facility-wide emissions (single and combined HAP) under Title V limits.

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

Emissions Unit ID: P007
Company Equipment ID: East Pad Loading Rack
Superseded Permit Number: P0057348
General Permit Category and Type: Not Applicable

Emissions Unit ID: P008
Company Equipment ID: Reclaim Loading Rack
Superseded Permit Number:
General Permit Category and Type: Not Applicable

Emissions Unit ID: P011
Company Equipment ID: Batch Distillation
Superseded Permit Number:
General Permit Category and Type: Not Applicable

Emissions Unit ID: P018
Company Equipment ID: North loading dock/pad
Superseded Permit Number:
General Permit Category and Type: Not Applicable

Emissions Unit ID: P019
Company Equipment ID: Lectrodryer
Superseded Permit Number:
General Permit Category and Type: Not Applicable

Group Name: Thin film evaporators

Table with 2 columns: Emissions Unit ID and details. Rows include P009 (LUWA L-430) and P010 (LUWA L-050).

A. Standard Terms and Conditions

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

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

2. Who is responsible for complying with this permit?

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

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

3. What records must I keep under this permit?

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

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

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

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

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

Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

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

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

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

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

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

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

7. What reports must I submit under this permit?

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

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

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

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

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

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

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

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

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

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

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

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

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting¹ a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emissions unit once the certification has been submitted to Ohio EPA by the authorized official.

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

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

¹ Permittees that use Ohio EPA's "Air Services" can mark the affected emissions unit(s) as "permanently shutdown" in the facility profile along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

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

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

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

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

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

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

B. Facility-Wide Terms and Conditions

Final Permit-to-Install and Operate

Hukill Chemical Corporation

Permit Number: P0108723

Facility ID: 1318030172

Effective Date: 2/29/2012

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
 - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (1) None.

C. Emissions Unit Terms and Conditions

1. P007, East Pad Loading Rack

Operations, Property and/or Equipment Description:

East pad reclaim loading rack

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

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

a. None.

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

a. b)(1)c., c)(2), d)(2), e)(2), f)(1)b., and f)(1)c.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Volatile Organic Compound (VOC) emissions shall not exceed 11.3 lbs/day.
b.	OAC rule 3745-21-07(M)	See b(2)b. below.
c.	OAC rule 3745-31-05(D)(1)(b) FEPTIO to avoid Title V	VOC emissions shall not exceed 1.41 tons per rolling, 12-month summation. Hazardous Air Pollutant (HAP) emissions shall not exceed 0.35 ton single and 0.99 ton combined per rolling, 12-month summation (based on 25% VOC single HAP and 70% VOC combined HAP). See c)(2) below.

(2) Additional Terms and Conditions

a. All of the VOC emissions from this emissions unit shall be vented to a vapor balance system that shall meet the operational, monitoring, and record keeping

requirements of this permit, when this emissions unit is in operation. The overall control efficiency for volatile organic compound (VOC) emissions shall be greater than 90 percent, by weight.

- b. There are no applicable requirements for loading racks in OAC rule 3745-21-07(M).

c) Operational Restrictions

- (1) A means shall be provided to prevent drainage from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected.
- (2) The maximum combined throughput of all organic materials for this emissions unit shall not exceed 13 million gallons per rolling, 12 month summation.
- (3) The maximum HAP content of all organic liquids processed shall not exceed 25 percent for any single HAP and 70 percent for total combined HAPs.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and maintain the following information, on a daily basis, while the emissions unit is in operation:
 - a. the name and identification of each VOC product;
 - b. the volume throughput of each VOC product in gallons; and
 - c. the total VOC emission rate for all products, in pounds per day calculated using the formula in f)(1)a. below.
- (2) The permittee shall collect and maintain the following information on a monthly basis:
 - a. the total VOC emission rate for all products, in tons per rolling, 12-month summation determined in accordance with f)(1)b. below;
 - b. the rolling, 12-month summation of single and combined HAP emissions in tons, determined in accordance with f)(1)c. below; and
 - c. the rolling, 12-month summation for all products, in gallons.
- (3) The permittee shall maintain records of percent single and combined HAP content of all organic liquids processed on a monthly basis.
- (4) The permittee shall perform daily visual inspections and quarterly monitoring of all pumps seals, pipeline valves in liquid service and process drains in accordance with the method outlined in OAC rule 3745-21-10(F).
- (5) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and

obtain a new or modified permit to install and operate (PTIO) prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTIO.

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

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

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

Emission limitations: 1.41 tons VOC, 0.35 ton single HAP and 0.99 ton combined HAP per rolling, 12-month summation

Operational limitations: 13 million gallons per rolling, 12-month summation
25% single HAP, 70% combined HAP content

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

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

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

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

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Cleveland DAQ.

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

f) Testing Requirements

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

a. Emission limitation:

11.3 pounds VOC per day

Applicable Compliance Method:

Compliance shall be based on the record keeping requirements as specified in (d)(1) and the following equation:

$$\text{lb/day} = F \times \text{EF} \times (1 - \text{CE})$$

Apply the above equation to each VOC product and then sum total the emissions to obtain total lbs/day of VOC emissions.

F = daily throughput in gallons per day

EF = emission factor of 2.17 lbs/1000 gal calculated from AP 42 Chapter 7.1, equation 1-2 and 2-26 at 80 °F.

CE = 90% for vapor balance system

b. Emission limitation:

1.41 tons VOC per rolling, 12-month summation

Applicable Compliance Method:

Compliance shall be based on a rolling 12-month summation of VOC emissions calculated as follows: sum total daily VOC emissions as calculated from d)(1) of these terms and conditions to obtain total pounds VOC emissions/month, then sum total the total pounds VOC emissions/month to obtain a rolling, 12-month summation, and divide by 2000 lbs/ton. Each new month constitutes a new 12-month summation.

c. Emission Limitation:

0.35 ton single and 0.99 ton combined HAP per rolling, 12-month summation

Applicable Compliance Method:

Compliance shall be determined based on 25% VOC for single HAP and 70% VOC for combined HAP and using the method identified in f)(1)b. above.

g) Miscellaneous Requirements

(1) This emission unit was installed in 1965 and modified in 1989.

2. P008, Reclaim Loading Rack

Operations, Property and/or Equipment Description:

Reclaim Loading Rack / Dock #10

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

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

a. None.

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

a. b)(1)c., c)(2), d)(2), e)(2), f)(1)b. and f)(1)c.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	VOC emissions shall not exceed 33.85 lbs/day.
b.	OAC rule 3745-21-07(M)	See b(2)a. below.
c.	OAC rule 3745-31-05(D)(1)(b) FEPTIO to avoid Title V	VOC emissions shall not exceed 2.81 tons per rolling, 12-month summation. HAP emissions shall not exceed 0.70 ton single HAP and 1.96 tons combined HAP per rolling, 12-month summation (based on a HAP content of 25% single and 70% combined of VOC). See c)(2) below.

(2) Additional Terms and Conditions

a. There are no applicable requirements for loading racks in OAC rule 3745-21-07(M).

c) Operational Restrictions

- (1) A means shall be provided to prevent drainage from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected.
- (2) The maximum throughput of all organic materials for this emissions unit shall not exceed 2.6 million gallons per rolling, 12 month summation.
- (3) The maximum HAP content of all organic liquids processed shall not exceed 25 percent for any single HAP and 70 percent for total combined HAPs.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and maintain the following information, on a daily basis, while the emissions unit is in operation:
 - a. the name and identification of each VOC product;
 - b. the volume throughput of each VOC product in gallons; and
 - c. the total VOC emission rate for all products, in pounds per day calculated in accordance with f)(1)a. below.
- (2) The permittee shall collect and maintain the following information on a monthly basis:
 - a. the total VOC emission rate for all products, in tons per rolling, 12-month period determined in accordance with f)(1)b below;
 - b. the rolling, 12-month summation of single and combined HAP emissions in tons, determined in accordance with f)(1)c. below; and
 - c. the rolling, 12-month summation for all products, in gallons.
- (3) The permittee shall maintain records of percent single and combined HAP content of all organic liquids processed on a monthly basis.
- (4) The permittee shall perform daily visual inspections and quarterly monitoring of all pumps seals, pipeline valves in liquid service and process drains in accordance with the method outlined in OAC rule 3745-21-10(F).
- (5) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified PTIO prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTIO.

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

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

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

Emission limitations: 2.81 tons VOC, 0.70 ton single HAP and 1.96 tons combined HAPs per rolling, 12-month summation

Operational limitations: 2.6 million gallons per rolling, 12-month summation
25% single HAP, 70% combined HAP content

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

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

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

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

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Cleveland DAQ.

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

f) Testing Requirements

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

a. Emission limitation:

33.85 pounds VOC per day

Applicable Compliance Method:

Compliance shall be based on the record keeping requirements as specified in (d)(1) and the following equation:

$$\text{lb/day} = F \times EF$$

F = daily throughput in gallons per day of non-exempt VOC

EF = emission factor of 2.17 lbs/1000 gal calculated from AP 42 Chapter 7.1 using equations 1-2 and 2-26 at 80 °F based on average solvent properties processed at this facility.

b. Emission limitation:

2.81 tons VOC per rolling, 12-month summation

Applicable Compliance Method:

Compliance shall be based on a rolling 12-month summation of VOC emissions calculated as follows: sum total daily VOC emissions as calculated from d)(1) of these terms and conditions to obtain total lbs VOC emissions/month, then sum the total lbs VOC emissions/month to obtain a rolling, 12-month summation, and divide by 2000 lbs/ton. Each new month constitutes a new 12-month summation.

c. Emission Limitation:

0.70 ton single and 1.96 tons combined HAP per rolling, 12-month summation

Applicable Compliance Method:

Compliance shall be determined based on 25% VOC for single HAP and 70% VOC for combined HAP and using the method identified in f)(1)b. above.

g) Miscellaneous Requirements

- (1) This emission unit was installed prior to 1989.

3. Emissions Unit Group -Thin film evaporators: P009,P010,

EU ID	Operations, Property and/or Equipment Description
P009	Thin film vacuum evaporator #1
P010	Thin film vacuum evaporator #2

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
- (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
- a. None.
- (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
- a. b)(1)c., b)(2)a., c)(1), d)(1), d)(2), d)(3), e(2), f)(1)c., and f)(1)d.
- b) Applicable Emissions Limitations and/or Control Requirements
- (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	VOC emissions shall not exceed 0.73 lb/hr and 17.5 lbs/day combined total for P009 and P010. The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D)(1)(b).
b.	OAC rule 3745-21-07(M)	The control requirements of this rule are less stringent than the control requirements established under OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-31-05(D)(1)(b) FEPTIO to avoid Title V	VOC emissions shall not exceed 2.72 tons per rolling, 12-month summation HAP emissions shall not exceed 0.68 ton single and 1.9 tons combined per rolling, 12-month summation combined for P009 and P010 (based on a HAP content of

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		25% single and 70% combined of VOC). See b)(2)c. below.

(2) Additional Terms and Conditions

a. These emission units are operated under negative pressure with a rotary vacuum pump with two product condensers in series with an additional third condenser as the control device. The condensers must always employ a double coiled water shell and tube condensers in series with a minimum total heat exchange surface area of 43 and 50 square feet and using a minimum of 15 gallons per minute of 50 degrees Fahrenheit (or less) cooling liquid (ethylene glycol).

c) Operational Restrictions

- (1) The average temperature of the cooling liquid in the vapor recovery system (refrigerated chiller), for any 3-hour block of time, shall not be more than 5 degrees Fahrenheit above the normal operating temperature of 50 degrees Fahrenheit.
- (2) The maximum combined throughput of all organic materials for these emissions units shall not exceed 8.24 million gallons per rolling, 12 month summation for P009 and P010 combined.
- (3) The maximum HAP content of all organic liquids processed shall not exceed 25 percent for any single HAP and 70 percent for total combined HAPs.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information on a monthly basis for P009 and P010 combined:
 - a. the company identification for each material processed/recycled;
 - b. the total amount of all materials processed, in gallons per month;
 - c. the total operating hours for the emissions unit, in hours per month;
 - d. the total number of days of operation per month;
 - e. the VOC emission rate, in pound per month calculated using the formula in f)(1)a. below;
 - f. the average hourly VOC emission rate, in pounds per hour (e/c);
 - g. the average daily VOC emission rate, in lbs/day (e/d);
 - h. the rolling, 12-month summation of VOC emissions, in tons calculated in accordance with f)(1)c.;

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- i. the rolling, 12-month summation of single and combined HAP emissions in tons, calculated in accordance with f)(1)d.; and
 - j. the rolling, 12-month summation of materials processed, in gallons.
- (2) The permittee shall maintain records of percent single and combined HAP content of all organic liquids processed on a monthly basis.
- (3) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average temperature of the condenser water, for any 3-hour block of time, shall not be more than 5 degrees Fahrenheit above the manufacturer's recommended normal operating temperature. The condenser shall be operated and maintained in accordance with the manufacturer's recommendations.
- (4) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder which measures and records the temperature of the condenser water when the emissions unit is in operation, including periods of startup and shutdown. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. The permittee shall collect and record the following information each day the emissions unit is in operation:
- a. all 3-hour blocks of time, when the emissions unit controlled by the condenser was in operation, during which the average temperature of the condenser water was more than 5 degrees Fahrenheit above the normal operating temperature recommended by the manufacturer; and
 - b. a log or record of operating time for the capture (collection) system, condenser, monitoring equipment, and the associated emissions unit.

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

- (5) Whenever the monitored temperature of the condenser water deviates from the range/limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
- a. the date and time the deviation began;
 - b. the magnitude of the deviation at that time;
 - c. the date the investigation was conducted;
 - d. the name(s) of the personnel who conducted the investigation; and
 - e. the findings and recommendations.

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

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was deviation;
- e. the temperature readings of the exhaust gas from condenser immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

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

- (6) The water temperature range/limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Cleveland DAQ. The permittee may request revisions to the permitted exhaust gas temperature range/limit based upon information obtained during future performance tests that demonstrate compliance with the allowable VOC emission rate for the controlled emissions unit. In addition, approved revisions to the exhaust gas temperature range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.
- (7) The permittee shall perform daily visual inspections and quarterly monitoring of all pumps seals, pipeline valves in liquid service and process drains in accordance with the method outlined in OAC rule 3745-21-10(F).
- (8) The permittee shall perform a quarterly analysis of outlet gas concentration from the vapor recovery system emission point using an FID/PID to ensure that the overall concentration remains at baseline operating levels. These concentrations shall not be used in emission reporting. Records shall be maintained of the results of the quarterly analysis.
- (9) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified PTIO prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air

contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTIO.

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

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

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

Emission limitations: 2.72 tons VOC, 0.68 ton single and 1.90 tons combined HAP emissions per rolling, 12-month summation for P009 and P010 combined

Operational Limitations: 8.24 million gallons per rolling, 12-month summation for P009 and P010 combined

25% single HAP and 70% combined HAP content

Temperature limitations: all 3-hour blocks of time when the emissions unit was in operation during which the average temperature of the cooling liquid in the condenser was more than 5 degrees Fahrenheit above the normal operating temperature.

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

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

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

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

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Cleveland DAQ.

(3) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation

report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

f) Testing Requirements

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

a. Emission Limitation:

VOC emissions shall not exceed 0.73 lb/hr (monthly average) combined total for P009 and P010.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be demonstrated based upon the record keeping requirements in d)(1) and the use of the following formula:

$$M \times EF \times (1-CE) = \text{lbs VOC/month}$$

$$(\text{lbs VOC/month} / (\text{hrs of operation/month})) = \text{lbs VOC/hr}$$

Where:

M = the amount of gallons processed per month multiplied by the average weight/gallon, in tons (combined total for P009 and P010);

EF = AP 42 emission factor Table 4.7-1 condenser vent (3.3 lbs VOC/ton, 13.2 lb/1000 gal)

CE = 95% control efficiency of the vapor recovery system.

b. Emission Limitation:

VOC emissions shall not exceed 17.52 lb/day (monthly average) combined total for P009 and P010.

Applicable Compliance Method:

Compliance with the daily emission limitation shall be demonstrated based upon the record keeping requirements in d)(1) and dividing the pound of VOC per month determined in f)(1)a. by the number of days of operation per month.

c. Emission Limitation:

2.72 tons VOC emissions per rolling, 12 month summation combined total for P009 and P010.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be demonstrated by summing the monthly VOC emissions per rolling, 12-month summation in f)(1)a. of these terms and conditions and dividing by 2000 lbs/ton.

d. Emission Limitation:

0.68 ton single and 1.90 tons combined HAP emissions per rolling, 12-month summation combined total for P009 and P010.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be demonstrated the same as f)(1)c. based on 25% VOC for single HAP and 70% VOC for combined HAP.

- (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted within 6 months prior to permit expiration.
 - b. The emission testing shall be conducted to demonstrate compliance with the lb/hr emission rate for organic compounds.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): mass balance method to determine the emissions of the LUWA product condensers over a determined time period using 95% control efficiency for the third condenser used as control. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

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

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

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ

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within 30 days following the completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

g) **Miscellaneous Requirements**

- (1) The emission unit P009 was installed prior to 1969 but modified in 1994, and P010 was installed in 1975.

4. P011, Batch Distillation

Operations, Property and/or Equipment Description:

Batch distillation column with product condenser and conservation vent

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. b)(1)c., d)(1)h., e)(2), f)(1)b. and f)(1)c.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05 (A)(3)	VOC emissions shall not exceed 0.53 lb/hr. The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D)(1)(b).
b.	OAC rule 3745-21-07(M)	The control requirements of this rule are less stringent than the control requirements established under OAC rule 3745-31-05(A)(3).

c.	OAC rule 3745-31-05(D)(1)(b) FEPTIO to avoid Title V	VOC emissions shall not exceed 2.3 tons per rolling, 12-month summation. HAP emissions shall not exceed 0.58 ton single HAP and 2.1 tons combined HAP per rolling, 12-month summation (based on a HAP content of 25% single and 90% combined of VOC).
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(2) Additional Terms and Conditions

- a. This emission unit is operated under a low flow, gravity system with water cooled product condenser connected with a reflux tank with capacity alarm, two knock out tanks and a conservation vent with pressure relief valves. The system is closed and only produces emissions if the pressure relief valves open due to excess pressure.

c) Operational Restrictions

- (1) The permittee shall maintain the reflux tank volume below 90% capacity.
- (2) The maximum throughput of all organic materials for this emissions unit shall not exceed 3.29 million gallons per rolling, 12 month summation.
- (3) The maximum HAP content of all organic liquids processed shall not exceed 25 percent for any single HAP and 90 percent for total combined HAPs.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information on a monthly basis:
 - a. the company identification for each material processed/recycled;
 - b. the total amount of all materials processed, in gallons per month;
 - c. the rolling, 12-month summation of all materials processed, in gallons;
 - d. the total operating hours for the emissions unit, in hours per month;
 - e. the total number of days of operation per month;
 - f. the total VOC emission rate for all materials employed, in pounds per month, calculated using the formula from f)(1)a.;
 - g. the average hourly VOC emission rate, in pounds per hour (f/d);
 - h. the rolling, 12-month summation of VOC emissions, in tons; and
 - i. the rolling, 12-month summation of single and combined HAP emissions, in tons determined in accordance with f)(1)c. below.

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- (2) The permittee shall collect and record the following information each day:
 - a. the average temperature of the cooling liquid in the product condenser during each of the eight 3-hour blocks of time during the day; and
 - b. the episodes when the reflux tank alarm indicates the volume is greater than 90%.
 - (3) The permittee shall maintain records of percent single and combined HAP content of all organic liquids processed on a monthly basis.
 - (4) The permittee shall perform daily visual inspections and quarterly monitoring of all pumps seals, pipeline valves in liquid service and process drains in accordance with the method outlined in OAC rule 3745-21-10(F).
 - (5) The permittee shall perform a quarterly analysis of outlet gas concentration from the pressure relief valve using an FID/PID to ensure that the overall concentration remains at baseline operating levels. These concentrations shall not be used in emission reporting. Records shall be maintained of the results of the quarterly analysis.
 - (6) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified PTIO prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTIO
- e) Reporting Requirements
- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
 - (2) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

Emission limitations:	2.3 tons VOC, 0.58 ton single HAP and 2.1 tons combined HAP emissions per rolling, 12-month summation
Operational Limitations:	3.29 million gallons per rolling, 12-month summation 25% single HAP and 90% combined HAP content

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- b. the probable cause of each deviation (excursion);
- c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
- d. the magnitude and duration of each deviation (excursion).

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

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Cleveland DAQ.

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

f) Testing Requirements

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

- a. Emission Limitation:

VOC emissions shall not exceed 0.53 lb/hr (monthly average)

- Applicable Compliance Method:

Compliance with the hourly emission limitation shall be demonstrated based upon the record keeping requirements in d)(1) and the use of the following formula below and if required, emission testing as detailed in f)(2).

$$M \times EF \times (1-CE) = \text{lbs VOC/month}$$

$$(\text{lbs VOC/month} / (\text{hrs of operation/month})) = \text{lbs VOC/hr}$$

Where:

M = the amount of gallons processed per month multiplied by the average weight/gallon, in tons;

EF = AP 42 emission factor Table 4.7-1 condenser vent (3.3 lbs VOC/ton)

CE = 90% control efficiency of the conservation vent/closed system. (2002 stack test calculated an emission of 0.16 lb/hr, therefore 90% control is conservatively assumed)

b. Emission Limitation:

2.3 tons VOC emissions per rolling, 12 month period.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be demonstrated by summing the monthly VOC emissions in d)(1)f. per rolling, 12-month period and dividing by 2000 lbs/ton.

c. Emission Limitation:

0.58 ton single and 2.1 ton combined HAP emissions per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be demonstrated the same as f)(1)b. based on 25% VOC for single HAP and 90% VOC for combined HAP.

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

- a. The emission testing shall be conducted within 6 months prior to permit expiration.
- b. The emission testing shall be conducted to demonstrate compliance with the VOC emission rate.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): mass balance method to determine the emissions of the distillation condenser over a determined time period. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The test shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

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

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

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

g) Miscellaneous Requirements

- (1) This emission unit was installed in 1978.

5. P018, North loading dock/pad

Operations, Property and/or Equipment Description:

North loading rack for solvents

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. b)(1)c., c)(2), d)(2), e)(2), f)(1)b, and f)(1)c.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	10.9 lbs VOC/day See b)(2)a. below
b.	OAC rule 3745-31-05(A)(3)(a)ii), as effective 12/02/06	See b)(2)b. below
c.	OAC rule 3745-31-05(D)(1)(b) FEPTIO to avoid Title V	VOC emissions shall not exceed 1.69 tons per rolling, 12-month summation. HAP emissions shall not exceed 0.42 ton single HAP and 1.18 tons combined HAP per rolling, 12-month summation (based on a HAP content of 25% single and 70% combined of VOC).

- (2) Additional Terms and Conditions
 - a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph

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(A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.

- b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

This permit to Install/operate for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment), as proposed by the permittee, for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

- i. Limit organic material throughput; and
 - ii. Install vapor balance system
- c. All of the VOC emissions from this emissions unit shall be vented to a vapor balance system that shall meet the operational, monitoring, and record keeping requirements of this permit, when this emissions unit is in operation. The overall control efficiency for volatile organic compound (VOC) emissions shall be greater than 90 percent, by weight.

c) Operational Restrictions

- (1) A means shall be provided to prevent drainage from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected.
- (2) The maximum combined throughput of all organic materials for this emissions unit shall not exceed 15.6 million gallons per rolling, 12 month summation.

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

	Maximum Allowable
Month	Cumulative gallons (million)
1	1.3
1-2	2.6
1-3	3.9

1-4	5.2
1-5	6.5
1-6	7.8
1-7	9.1
1-8	10.4
1-9	11.7
1-10	13.0
1-11	14.3
1-12	15.6

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

- (3) The maximum HAP content of all organic liquids processed shall not exceed 25 percent for any single HAP and 70 percent for total combined HAPs.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and maintain the following information, on a daily basis, while the emissions unit is in operation:
- a. the name and identification of each VOC product;
 - b. the volume throughput of each VOC product in gallons; and
 - c. the total VOC emission rate for all products, in pounds per day calculated using the formula in f)(1)a. below.
- (2) The permittee shall collect and maintain the following information on a monthly basis:
- a. the total VOC emission rate for all products, in tons per rolling, 12-month summation determined in accordance with f)(1)b below;
 - b. the rolling, 12-month summation of HAP emissions in tons, determined in accordance with f)(1)c. below; and
 - c. the rolling, 12-month summation for all products, in gallons.
- (3) The permittee shall maintain records of percent single and combined HAP content of all organic liquids processed on a monthly basis.

- (4) The permittee shall perform daily visual inspections and quarterly monitoring of all pumps seals, pipeline valves in liquid service and process drains in accordance with the method outlined in OAC rule 3745-21-10(F).
- (5) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified PTIO prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTIO.

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

Emission limitations:	1.69 tons VOC, 0.42 ton single HAP and 1.18 tons combined HAP emissions per rolling, 12-month summation
Operational Limitations:	15.6 million gallons per rolling, 12-month summation 25% single HAP and 70% combined HAP content
 - b. the probable cause of each deviation (excursion);
 - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - d. the magnitude and duration of each deviation (excursion).

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

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Cleveland DAQ.

- (3) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

f) Testing Requirements

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

a. Emission limitation:

10.9 pounds VOC per day

Applicable Compliance Method:

Compliance shall be based on the record keeping requirements as specified in (d)(1) and the following equation:

$$\text{lb/day} = F \times \text{EF} \times (1 - \text{CE})$$

Apply the above equation to each VOC product and then sum total the emissions to obtain total lbs/day of VOC emissions.

F = daily throughput in gallons per day

EF = emission factor of 2.17 lbs/1000 gal calculated from AP 42 Chapter 7.1, equation 1-2 and 2-26 at 80 °F.

CE = 90% for vapor balance system

b. Emission limitation:

1.69 tons VOC per rolling, 12-month summation

Applicable Compliance Method:

Compliance shall be based on a rolling 12-month summation of VOC emissions calculated as follows: sum total daily VOC emissions as calculated from d)(1) of these terms and conditions to obtain total pounds VOC emissions/month, then sum total the total pounds VOC emissions/month to obtain a rolling, 12-month summation, and divide by 2000 lbs/ton. Each new month constitutes a new 12-month summation.

c. Emission Limitation:

0.42 ton single and 1.18 ton combined HAP per rolling, 12-month summation

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Applicable Compliance Method:

Compliance shall be determined based on 25% VOC for single HAP and 70% VOC for combined HAP and using the method identified in f)(1)b. above.

g) Miscellaneous Requirements

- (1) This emissions unit will be installed in 2011.

6. P019, Lectrodryer

Operations, Property and/or Equipment Description:

Solvent and liquid Lectrodryer dryer

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. b)(1)c., c)(2), d)(1), e)(2), e)(3), f)(1)b. and f)(1)c.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	VOC emissions shall not exceed 25.6 lbs/day. The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D)(1)(b). See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 12/2/2006	See b)(2)b. below.
c.	OAC rule 3745-31-05(D)(1)(b) FEPTIO to avoid Title V	VOC emissions shall not exceed 0.64 tons per rolling, 12-month summation. HAP emissions shall not exceed 0.16 ton single HAP and 0.45 ton combined HAP per rolling, 12-month summation (based on a HAP content of 25% single and 70% combined of VOC). See b)(2)c. below.

(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.
- b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

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

- i. limit organic material throughput by limiting number of drying cycles

- c. All of the VOC emissions from this emissions unit shall be vented to a condenser that shall meet the operational, monitoring, and record keeping requirements of this permit, when the emissions unit is in operation.

c) Operational Restrictions

- (1) This emission unit shall process no more than one cycle per day and 50 drying cycles per rolling, 12-month period.
- (2) The maximum HAP content of all organic liquids processed shall not exceed 25 percent for any single HAP and 70 percent for total combined HAPs.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information on a daily basis:
- a. the company identification for each material processed/recycled;
- b. the total amount of all materials processed, in pounds per cycle;
- c. the total operating hours for the emissions unit, in hours per cycle; and

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- d. the VOC emission rate, in pounds per day calculated using the formula in f)(1)a..
- (2) The permittee shall maintain monthly records of the following information:
- a. the rolling, 12-month summation of VOC emissions, in tons calculated in accordance with f)(1)b.;
 - b. the rolling, 12-month summation of single and combined HAP emissions in tons, calculated in accordance with f)(1)c.; and
 - c. the rolling, 12-month summation of drying cycles.
- (3) The permittee shall maintain records of percent single and combined HAP content of all organic liquids processed on a monthly basis.
- (4) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average temperature of the condenser water, for any 3-hour block of time, shall not be more than 5 degrees Fahrenheit above the manufacturer's recommended normal operating temperature. The condenser shall be operated and maintained in accordance with the manufacturer's recommendations.
- (5) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder which measures and records the temperature of the condenser water when the emissions unit is in operation, including periods of startup and shutdown. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. The permittee shall collect and record the following information each day the emissions unit is in operation:
- a. all 3-hour blocks of time, when the emissions unit controlled by the condenser was in operation, during which the average temperature of the condenser water was more than 5 degrees Fahrenheit above the normal operating temperature recommended by the manufacturer; and
 - b. a log or record of operating time for the capture (collection) system, condenser, monitoring equipment, and the associated emissions unit.

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

- (6) Whenever the monitored temperature of the condenser water deviates from the range/limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
- a. the date and time the deviation began;
 - b. the magnitude of the deviation at that time;

- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

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

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was deviation;
- e. the temperature readings of the exhaust gas from condenser immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

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

- (7) The condenser water temperature range/limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Cleveland DAQ. The permittee may request revisions to the permitted exhaust gas temperature range/limit based upon information obtained during future performance tests that demonstrate compliance with the allowable VOC emission rate for the controlled emissions unit. In addition, approved revisions to the exhaust gas temperature range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.
- (8) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified PTIO prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTIO.

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall identify in the annual permit evaluation report the following information concerning the operations of the condenser during the 12-month reporting period for this emissions unit:
 - a. each period of time (start time and date, and end time and date) when the average temperature of the condenser water was outside of the range specified by the manufacturer and/or outside of the acceptable range following any required compliance demonstration;
 - b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the condenser;
 - c. each incident of deviation described in "a" or "b" (above) where a prompt investigation was not conducted;
 - d. each incident of deviation described in "a" or "b" where prompt corrective action, that would bring the emissions unit into compliance and/or the temperature of the condenser water into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - e. each incident of deviation described in "a" or "b" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.
- (3) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

Emission limitations:	0.64 tons VOC, 0.16 ton single HAP and 0.45 ton combined HAP emissions per rolling, 12-month summation
Operational Limits:	50 drying cycles per rolling, 12-month period
	25% single HAP and 70% combined HAP content

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Temperature limitations: all 3-hour blocks of time when the emissions unit was in operation during which the average temperature of the cooling liquid in the vapor recovery unit was more than 5 degrees Fahrenheit above the normal operating temperature.

- b. the probable cause of each deviation (excursion);
- c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
- d. the magnitude and duration of each deviation (excursion).

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

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Cleveland DAQ.

- (4) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

f) Testing Requirements

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

a. Emission Limitation:

VOC emissions shall not exceed 25.6 lb/day

Applicable Compliance Method:

Compliance with the daily emission limitation shall be demonstrated based upon recordkeeping in d)(1) and the following formula:

$$E \text{ (lb/day)} = ER \times T \times (1 - CE)$$

ER = 12.8 lb/hr (calculated per ideal gas law with nitrogen at 20 cfm below)

$$\frac{P(\text{solvent}) \times \text{lb} \cdot \text{mole}(\text{N}_2)/\text{hr}}{P(\text{nitrogen})} \times \text{mol. weight} = \frac{51.8 \cdot 1.9}{708.2} * 91.6 \text{ mole N}_2 = 12.8 \text{ lb/hr}$$

T = 4 hrs/cycle

CE = 50%

b. Emission Limitation:

VOC emissions shall not exceed 0.64 tons per rolling, 12-month summation

Applicable Compliance Method:

Compliance with the yearly emission limitation shall be demonstrated based upon the record keeping requirements in d)(1), and the formula in f)(1)a., with the daily emissions summed and divided by 2000 lb/ton to determine total monthly VOC emissions which are then summed to obtain a rolling, 12-month summation, and divide by 2000 lbs/ton. Each new month constitutes a new 12-month summation.

c. Emission Limitation:

HAP emissions shall not exceed 0.16 ton for single and 0.45 ton for combined HAP per rolling, 12-month summation

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be demonstrated based upon the record keeping requirements in d)(1) based on 25% VOC for single HAP and 70% VOC for combined HAP.

g) Miscellaneous Requirements

(1) This emissions unit will be installed in 2011.