

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

5/6/2014

Certified Mail

Mr. Brad Kelley
Mane, Inc.
1093 Mane Way
Lebanon, OH 45036

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

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 1483060488
Permit Number: P0116463
Permit Type: Renewal
County: Warren

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) 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. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

How to appeal this permit

The issuance of this PTIO 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
77 South High Street, 17th Floor
Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

The Ohio EPA is encouraging 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 Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

How to give us feedback on your permitting experience

Please complete a survey at www.epa.ohio.gov/survey.aspx and give us feedback on your permitting experience. We value your opinion.

How to get an electronic copy of your permit

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Southwest Ohio Air Quality Agency at (513)946-7777 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

Cc: SWOAQA



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for
Mane, Inc.**

Facility ID:	1483060488
Permit Number:	P0116463
Permit Type:	Renewal
Issued:	5/6/2014
Effective:	5/6/2014
Expiration:	3/26/2019



Division of Air Pollution Control
Permit-to-Install and Operate
for
Mane, Inc.

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Authorization

Facility ID: 1483060488
Application Number(s): A0050239
Permit Number: P0116463
Permit Description: Renewal of FEPTIOs for a flavoring production facility.
Permit Type: Renewal
Permit Fee: \$0.00
Issue Date: 5/6/2014
Effective Date: 5/6/2014
Expiration Date: 3/26/2019
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Mane, Inc.
1093 Mane Way
Lebanon, OH 45036

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

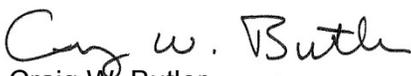
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Southwest Ohio Air Quality Agency
250 William Howard Taft Rd.
Cincinnati, OH 45219
(513)946-7777

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


Craig W. Butler
Director



Authorization (continued)

Permit Number: P0116463
 Permit Description: Renewal of FEPTIOs for a flavoring production facility.

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

- | | |
|-----------------------------------|------------------------------|
| Emissions Unit ID: | P001 |
| Company Equipment ID: | Techni Spray Dryer |
| Superseded Permit Number: | P0105607 |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | P002 |
| Company Equipment ID: | Production Minor Spray Dryer |
| Superseded Permit Number: | P0105607 |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | P003 |
| Company Equipment ID: | Glatt Fluidized Bed Dryer |
| Superseded Permit Number: | P0105607 |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | P005 |
| Company Equipment ID: | Line #2 |
| Superseded Permit Number: | P0104168 |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | P006 |
| Company Equipment ID: | Line #3 |
| Superseded Permit Number: | P0104168 |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | P007 |
| Company Equipment ID: | Line #4 |
| Superseded Permit Number: | P0105141 |
| General Permit Category and Type: | Not Applicable |

Group Name: Flavor Cap Line #s 1, 5, 6-10

Emissions Unit ID:	P004
Company Equipment ID:	Line #1
Superseded Permit Number:	P0107287
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P008
Company Equipment ID:	Line #6
Superseded Permit Number:	P0108065
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P009
Company Equipment ID:	Line #7
Superseded Permit Number:	P0108065
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P010
Company Equipment ID:	Line #8
Superseded Permit Number:	P0108065
General Permit Category and Type:	Not Applicable



Final Permit-to-Install and Operate

Mane, Inc.

Permit Number: P0116463

Facility ID: 1483060488

Effective Date: 5/6/2014

Emissions Unit ID:	P011
Company Equipment ID:	Line #5
Superseded Permit Number:	P0110882
General Permit Category andType:	Not Applicable
Emissions Unit ID:	P012
Company Equipment ID:	Line #9
Superseded Permit Number:	P0112482
General Permit Category andType:	Not Applicable
Emissions Unit ID:	P013
Company Equipment ID:	Line #10
Superseded Permit Number:	P0112482
General Permit Category andType:	Not Applicable



Final Permit-to-Install and Operate

Mane, Inc.

Permit Number: P0116463

Facility ID: 1483060488

Effective Date: 5/6/2014

A. Standard Terms and Conditions



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

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

2. Who is responsible for complying with this permit?

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

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

3. What records must I keep under this permit?

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

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

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

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

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

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

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

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



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

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

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

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

7. What reports must I submit under this permit?

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

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

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions of this permit 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 [DO/LAA] in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

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

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

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

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

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

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

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

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



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

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

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

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

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

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



Final Permit-to-Install and Operate

Mane, Inc.

Permit Number: P0116463

Facility ID: 1483060488

Effective Date: 5/6/2014

B. Facility-Wide Terms and Conditions



Final Permit-to-Install and Operate

Mane, Inc.

Permit Number: P0116463

Facility ID: 1483060488

Effective Date: 5/6/2014

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.



Final Permit-to-Install and Operate

Mane, Inc.

Permit Number: P0116463

Facility ID: 1483060488

Effective Date: 5/6/2014

C. Emissions Unit Terms and Conditions



1. P001, Techni Spray Dryer

Operations, Property and/or Equipment Description:

Techni Spray 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. None.
- 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	Particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10) shall not exceed 0.23 pound per hour and 1.01 tons per year (TPY). Emissions of volatile organic compounds (VOC) shall not exceed 1.84 pounds per hour and 8.06 TPY. See b)(2)a. and b)(2)b.
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)c.
c.	OAC rule 3745-31-05(C), as effective 12/01/06	See b)(2)d.
d.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by rule.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	OAC rule 3745-17-11(B)(1)	PE shall not exceed 1.51 pounds per hour based on Table I. See b)(2)e.

(2) Additional Terms and Conditions

- a. At all times the source is in operation, emissions shall be vented to a wet scrubber with a minimum control efficiency of 90% for VOC and PE/PM10.
- b. 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, these emission limitations/control measures no longer apply.
- c. These rule paragraphs apply once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE from this source since the calculated annual emissions rate for PE is less than 10 TPY taking into account the Federally Enforceable rule limit of 1.51 pounds per hour under OAC rule 3745-17-11(B)(1).

The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM10 emissions from this source since the uncontrolled potential to emit for PM10 is less than 10 TPY.

- d. 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.

FEPTIO P0116463 for this 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 BAT requirements under OAC rule 3745-31-05(A)(3):

- i. At all times the source is in operation, emissions shall be vented to a wet scrubber with a minimum control efficiency of 90% for VOC; and



- ii. Emissions of VOC from this source shall not exceed 8.06 TPY.
 - e. The SIP-based PE limit will be effective once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05. At that time, the BAT PE emission limitation will no longer apply.
- c) Operational Restrictions
- (1) None.
- d) Monitoring and/or Recordkeeping Requirements
- (1) In order to maintain compliance with the applicable emission limitation(s) and voluntary restriction contained in this permit, the acceptable range or limit for the pressure drop across the scrubber shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range for the parameter is established to demonstrate compliance.
 - (2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop across the scrubber (in pounds per square inch, gauge) during operation of this emissions unit, including periods of startup and shutdown. The permittee shall record the pressure drop across the scrubber on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. The acceptable pressure drop shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range for the parameter is established to demonstrate compliance.

Whenever the monitored value for any parameter deviates from the range(s) or minimum limit(s) 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 control equipment parameters within the acceptable range(s), or at or above the minimum limit(s) 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:



- f. a description of the corrective action;
- g. the date the corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. 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.

This range and/or limit for the pressure drop is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted range or limit for the pressure drop based upon information obtained during future performance tests that demonstrate compliance with the allowable VOC and/or PE/PM10 emission rates for this/these emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (3) 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) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified.



Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.

- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (3) The permittee shall identify in the annual PER the following information concerning the operations of the wet scrubber during the 12-month reporting period for this/these emissions unit(s) as determined from the monitoring requirements in d)(1) and d)(2):
 - a. each period of time (start time and date, and end time and date) when the pressure drop across the scrubber was outside of the appropriate range or limit specified by the manufacturer and outside of the acceptable range for each parameter following any required compliance demonstration;
 - b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the scrubber;
 - 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 pressure drop into compliance with the appropriate range or limit contained in this permit, 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

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation:

Particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10) shall not exceed 0.23 pound per hour.

At all times the source is in operation, emissions shall be vented to a wet scrubber with a minimum control efficiency of 90% for PE/PM10.



Applicable Compliance Method:

If required, compliance with the short-term PE/PM10 emissions limitation shall be demonstrated by emissions tests using methodology including, but not limited to, Method 5, as specified in 40 CFR Part 60, Appendix A. The permittee may request to use an alternative method or procedure for the determination of Capture Efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA.

If required to demonstrate compliance based on process data, the permittee may calculate the PE/PM10 emissions rate by using the following calculation or similar method for determining emissions:

actual throughput, pounds of product/hour x actual solids content, pounds of solids/pound of product x 0.01 pounds of PE/PM10/pound of solids x (1 – 0.90 CE) = actual pounds of PE/PM10/hour

The pounds of PE/PM10/pound of solids Emission Factor is based on a 99% by weight overall product recovery efficiency of the cyclones inherent to the process. CE is the 90% Control Efficiency of the wet scrubber for PE/PM10 emissions.

The short-term PE/PM10 emission limitation was established from information, including proprietary production information, supplied by the permittee in the Application for PTI 14-05980 issued Final 11/27/2007 and Application A0050239 for FEPTIO P0116463:

2.26 pounds PE/PM10/hour, uncontrolled x (1 – 0.90 CE) = 0.226 pound PE/PM10/hour, rounded to 0.23 pound PE/PM10/hour, controlled

b. Emission Limitation and VOC Control Requirement and Voluntary Restriction:

Emissions of volatile organic compounds (VOC) shall not exceed 1.84 pounds per hour.

At all times the source is in operation, emissions shall be vented to a wet scrubber with a minimum control efficiency of 90% for VOC.

Applicable Compliance Method:

If required, compliance with the short-term VOC emissions limitation shall be demonstrated by emissions tests using methodology including, but not limited to, Method 25, as specified in 40 CFR Part 60, Appendix A. The permittee may request to use an alternative method or procedure for the determination of Capture Efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control



system) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA.

If required to demonstrate compliance based on process data, the permittee may calculate the VOC emissions rate by using the following calculation or similar method for determining emissions:

actual throughput, pounds of product/hour x actual VOC content, pounds of VOC/pound of product x (1 – 0.90 CE) = actual pounds of VOC/hour

CE is the 90% Control Efficiency of the wet scrubber for VOC emissions.

The short-term VOC emission limitation was established from information, including proprietary production information, supplied by the permittee in the Application for PTI 14-05980 issued Final 11/27/2007 and Application A0050239 for FEPTIO P0116463:

18.37 pounds VOC/hour, uncontrolled x (1 – 0.90 CE) = 1.84 pounds VOC/hr, controlled

c. Emission Limitations and VOC Voluntary Restriction:

PE/PM10 emissions shall not exceed 1.01 TPY.

VOC emissions shall not exceed 8.06 TPY.

Applicable Compliance Method:

If required, the permittee may calculate the PE/PM10 and VOC emissions rate by using the following calculations or similar methods for determining emissions:

i. For PE/PM10:

actual throughput, pounds of product(s)/year x actual solids content, pounds of solids/pound of product(s) x 0.01 pounds of PE/PM10/pound of solids x (1 – 0.90 CE) x 1 Ton/2000 pounds = actual TPY PE/PM10; and

ii. For VOC:

actual throughput, pounds of product(s)/year x actual VOC content, pounds of VOC/pound of product(s) x (1 – 0.90 CE) x 1 Ton/2000 pounds = actual TPY VOC.

The annual PE/PM10 and VOC emission limitations were established from information, including proprietary production information, supplied by the permittee in the Application for PTI 14-05980 issued Final 11/27/2007 and Application A0050239 for FEPTIO P0116463:

0.23 pound PE/PM10/hour x 8760 hours/year x 1 Ton/2000 pounds = 1.01 TPY PE/PM10



1.84 pounds VOC/hour x 8760 hours/year x 1 Ton/2000 pounds = 8.06 TPY VOC

PM10 can be shown to be less than 10 TPY based on the uncontrolled potential to emit:

2.26 pounds PM10/hour, uncontrolled x 8760 hours/year x 1 Ton/2000 pounds = 9.90 TPY PM10

d. Emission Limitation:

Visible particulate emissions from the stack serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be demonstrated through visible emission observations performed in accordance with USEPA Method 9.

e. Emission Limitation:

PE shall not exceed 1.51 pounds per hour based on Table I.

Applicable Compliance Method:

If required, compliance with the PE limitation shall be demonstrated by emissions tests using methodology including, but not limited to, Method 5, as specified in 40 CFR Part 60, Appendix A. The permittee may request to use an alternative method or procedure for the determination of Capture Efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995.

If required to demonstrate compliance based on process data, the permittee may calculate the PE emission rate by using the calculation in f)(1)a. or similar method for determining emissions.

The SIP PE limitation was established from Table I of OAC rule 3745-17-11 using proprietary production information, supplied by the permittee in the Application for PTI 14-05980 issued Final 11/27/2007 and Application A0050239 for FEPTIO P0116463:

PWR (P) between 0.05 TPH and 30 TPH is considered Trade Secret

$$E = 4.10 (P)^{0.67} = 1.51 \text{ pounds of PE per hour}$$

PE can be shown to be less than 10 TPY taking into account the Federally Enforceable rule limit:

1.51 pounds PE/hour x 8760 hours/year x 1 Ton/2000 pounds = 6.61 TPY PE



Final Permit-to-Install and Operate

Mane, Inc.

Permit Number: P0116463

Facility ID: 1483060488

Effective Date: 5/6/2014

g) Miscellaneous Requirements

(1) None.



2. P002, Production Minor Spray Dryer

Operations, Property and/or Equipment Description:

Production Minor Spray 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. None.
- 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	Particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10) shall not exceed 0.15 pound per hour and 0.66 tons per year (TPY). Emissions of volatile organic compounds (VOC) shall not exceed 0.12 pound per hour and 0.53 TPY. See b)(2)a. and b)(2)b.
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)c.
c.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by rule.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-11(B)(1)	PE shall not exceed 0.551 pound per hour based on Table I. See b)(2)d.

(2) Additional Terms and Conditions

- a. At all times the source is in operation, emissions shall be vented to a wet scrubber with a minimum control efficiency of 90% for VOC and PE/PM10.
- b. 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, these emission limitations/control measures no longer apply.
- c. These rule paragraphs apply once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE from this source since the calculated annual emissions rate for PE is less than 10 TPY taking into account the Federally Enforceable rule limit of 0.551 pounds per hour under OAC rule 3745-17-11(B)(1).

The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC or PM10 emissions from this source since the uncontrolled potential to emit for VOC and PM10 is less than 10 TPY each.

- d. The SIP-based PE limit will be effective once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05. At that time, the BAT PE emission limitation will no longer apply.

c) Operational Restrictions

- (1) None.



d) **Monitoring and/or Recordkeeping Requirements**

- (1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range or limit for the pressure drop across the scrubber shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range for the parameter is established to demonstrate compliance.
- (2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop across the scrubber (in pounds per square inch, gauge) during operation of this emissions unit, including periods of startup and shutdown. The permittee shall record the pressure drop across the scrubber on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. The acceptable pressure drop shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range for the parameter is established to demonstrate compliance.

Whenever the monitored value for any parameter deviates from the range(s) or minimum limit(s) 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 control equipment parameters within the acceptable range(s), or at or above the minimum limit(s) 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:

- f. a description of the corrective action;
- g. the date the corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;



- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. 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.

This range and/or limit for the pressure drop is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted range or limit for the pressure drop based upon information obtained during future performance tests that demonstrate compliance with the allowable VOC and/or PE/PM10 emission rates for this/these emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (3) 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) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.



- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
 - (3) The permittee shall identify in the annual PER the following information concerning the operations of the wet scrubber during the 12-month reporting period for this/these emissions unit(s) as determined from the monitoring requirements in d)(1) and d)(2):
 - a. each period of time (start time and date, and end time and date) when the pressure drop across the scrubber was outside of the appropriate range or limit specified by the manufacturer and outside of the acceptable range for each parameter following any required compliance demonstration;
 - b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the scrubber;
 - 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 pressure drop into compliance with the appropriate range or limit contained in this permit, 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
- f) **Testing Requirements**
- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. **Emission Limitation:**

Particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10) shall not exceed 0.15 pound per hour.

At all times the source is in operation, emissions shall be vented to a wet scrubber with a minimum control efficiency of 90% for PE/PM10.

Applicable Compliance Method:

If required, compliance with the short-term PE/PM10 emissions limitation shall be demonstrated by emissions tests using methodology including, but not limited to, Method 5, as specified in 40 CFR Part 60, Appendix A. The permittee may request to use an alternative method or procedure for the determination of Capture Efficiency in accordance with USEPA's "Guidelines for Determining



Capture Efficiency,” dated January 9, 1995. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA.

If required to demonstrate compliance based on process data, the permittee may calculate the PE/PM10 emissions rate by using the following calculation or similar method for determining emissions:

actual throughput, pounds of product/hour x actual solids content, pounds of solids/pound of product x 0.10 pound of PE/PM10/pound of solids x (1 – 0.90 CE) = actual pounds of PE/PM10/hour

The pounds of PE/PM10/pound of solids Emission Factor is based on a 90% by weight overall product recovery efficiency of the filters inherent to the process. CE is the 90% Control Efficiency of the wet scrubber for PE/PM10 emissions.

The short-term PE/PM10 emission limitation was established from information, including proprietary production information, supplied by the permittee in the Application for PTI 14-05980 issued Final 11/27/2007 and Application A0050239 for FEPTIO P0116463:

1.50 pounds PE/PM10/hour, uncontrolled x (1 – 0.90 CE) = 0.15 pound PE/PM10/hour, controlled

b. Emission Limitation and VOC Control Requirement and Voluntary Restriction:

Emissions of volatile organic compounds (VOC) shall not exceed 0.12 pound per hour.

At all times the source is in operation, emissions shall be vented to a wet scrubber with a minimum control efficiency of 90% for VOC.

Applicable Compliance Method:

If required, compliance with the short-term VOC emissions limitation shall be demonstrated by emissions tests using methodology including, but not limited to, Method 25, as specified in 40 CFR Part 60, Appendix A. The permittee may request to use an alternative method or procedure for the determination of Capture Efficiency in accordance with the USEPA’s “Guidelines for Determining Capture Efficiency,” dated January 9, 1995. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA.

If required to demonstrate compliance based on process data, the permittee may calculate the VOC emissions rate by using the following calculation or similar method for determining emissions:

actual throughput, pounds of product/hour x actual VOC content, pounds of VOC/pound of product x (1 – 0.90 CE) = actual pounds of VOC/hour



CE is the 90% Control Efficiency of the wet scrubber for VOC emissions.

The short-term VOC emission limitation was established from information, including proprietary production information, supplied by the permittee in the Application for PTI 14-05980 issued Final 11/27/2007 and Application A0050239 for FEPTIO P0116463:

1.16 pounds VOC/hour, uncontrolled x (1 – 0.90 CE) = 0.12 pound VOC/hr, controlled

c. Emission Limitations and VOC Voluntary Restriction:

PE/PM10 emissions shall not exceed 0.66 TPY.

VOC emissions shall not exceed 0.53 TPY.

Applicable Compliance Method:

If required, the permittee may calculate the PE/PM10 and VOC emissions rate by using the following calculations or similar methods for determining emissions:

i. For PE/PM10:

actual throughput, pounds of product(s)/year x actual solids content, pounds of solids/pound of product(s) x 0.10 pounds of PE/PM10/pound of solids x (1 – 0.90 CE) x 1 Ton/2000 pounds = actual TPY PE/PM10; and

ii. For VOC:

actual throughput, pounds of product(s)/year x actual VOC content, pounds of VOC/pound of product(s) x (1 – 0.90 CE) x 1 Ton/2000 pounds = actual TPY VOC.

The annual PE/PM10 and VOC emission limitations were established from information, including proprietary production information, supplied by the permittee in the Application for PTI 14-05980 issued Final 11/27/2007 and Application A0050239 for FEPTIO P0116463:

0.15 pound PE/PM10/hour x 8760 hours/year x 1 Ton/2000 pounds = 0.66 TPY PE/PM10

0.12 pound VOC/hour x 8760 hours/year x 1 Ton/2000 pounds = 0.53 TPY VOC

PM10 can be shown to be less than 10 TPY based on the uncontrolled potential to emit:

1.50 pounds PM10/hour, uncontrolled x 8760 hours/year x 1 Ton/2000 pounds = 6.57 TPY PM10



d. Emission Limitation:

Visible particulate emissions from the stack serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be demonstrated through visible emission observations performed in accordance with USEPA Method 9.

e. Emission Limitation:

PE shall not exceed 0.551 pound per hour based on Table I.

Applicable Compliance Method:

If required, compliance with the PE limitation shall be demonstrated by emissions tests using methodology including, but not limited to, Method 5, as specified in 40 CFR Part 60, Appendix A. The permittee may request to use an alternative method or procedure for the determination of Capture Efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995.

If required to demonstrate compliance based on process data, the permittee may calculate the PE emission rate by using the calculation in f)(1)a. or similar method for determining emissions.

The SIP PE limitation was established from Table I of OAC rule 3745-17-11 using proprietary production information, supplied by the permittee in the Application for PTI 14-05980 issued Final 11/27/2007 and Application A0050239 for FEPTIO P0116463:

PWR (P) between 0 TPH and 0.05 TPH is considered Trade Secret

$E = 0.551$ pounds of PE per hour

PE can be shown to be less than 10 TPY taking into account the Federally Enforceable rule limit:

$0.551 \text{ pound PE/hour} \times 8760 \text{ hours/year} \times 1 \text{ Ton/2000 pounds} = 2.41 \text{ TPY PE}$

g) Miscellaneous Requirements

(1) None.



3. P003, Glatt Fluidized Bed Dryer

Operations, Property and/or Equipment Description:

Glatt Spray 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. None.
- 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	Particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10) shall not exceed 0.033 pound per batch and 0.04 tons per year (TPY). Emissions of volatile organic compounds (VOC) shall not exceed 0.20 pound per batch and 0.25 TPY. See b)(2)a. and b)(2)b.
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)c.
c.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by rule.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-11(B)(1)	PE shall not exceed 0.83 pound per hour based on Table I. See b)(2)d.

(2) Additional Terms and Conditions

- a. At all times the source is in operation, emissions shall be vented to a fabric filter with a minimum control efficiency of 99% for PE/PM10.
- b. 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, these emission limitations/control measures no longer apply.
- c. These rule paragraphs apply once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE from this source since the calculated annual emissions rate for PE is less than 10 TPY taking into account the Federally Enforceable rule limit of 0.83 pounds per hour under OAC rule 3745-17-11(B)(1).

The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC or PM10 emissions from this source since the uncontrolled potential to emit for VOC and PM10 is less than 10 TPY each.

- d. The SIP-based PE limit will be effective once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05. At that time, the BAT PE emission limitation will no longer apply.

c) Operational Restrictions

- (1) None.



d) **Monitoring and/or Recordkeeping Requirements**

- (1) The acceptable range for the pressure drop across the fabric filter shall be based upon the manufacturer's specifications, until such time as any required performance testing is conducted and an alternative pressure drop range and/or limit is established.
- (2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the fabric filter when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the fabric filter on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. The acceptable pressure drop shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range is established to demonstrate compliance.

Whenever the monitored value for the pressure drop deviates from the limit or range 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 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:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. 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.

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

- (3) 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) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (3) The permittee shall identify in the annual PER the following information concerning the operations of the fabric filter during the 12-month reporting period for this/these emissions unit(s) as determined from the monitoring requirements in d)(1) and d)(2):



- a. each period of time (start time and date, and end time and date) when the pressure drop across the fabric filter was outside of the range specified by the manufacturer and 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(s) was/were in operation and the process emissions were not vented to the fabric filter;
- c. each incident of deviation described in [a] (above) where a prompt investigation was not conducted;
- d. each incident of deviation described in [a] where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
- e. each incident of deviation described in [a] 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.

f) **Testing Requirements**

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

- a. **Emission Limitation:**

Particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10) shall not exceed 0.033 pound per batch.

At all times the source is in operation, emissions shall be vented to a fabric filter with a minimum control efficiency of 99% for PE/PM10.

Applicable Compliance Method:

If required, compliance with the short-term PE/PM10 emissions limitation shall be demonstrated by emissions tests using methodology including, but not limited to, Method 5, as specified in 40 CFR Part 60, Appendix A. The permittee may request to use an alternative method or procedure for the determination of Capture Efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA.

If required to demonstrate compliance based on process data, the permittee may calculate the PE/PM10 emissions rate by using the following calculation or similar method for determining emissions:



actual throughput, pounds of product/batch x actual solids content, pounds of solids/pound of product x 0.01 pound of PE/PM10/pound of solids x (1 – 0.99 CE) = actual pounds of PE/PM10/batch

The pounds of PE/PM10/pound of solids Emission Factor is based on a 99% by weight overall product recovery efficiency of the filters inherent to the process. CE is the 99% Control Efficiency of the fabric filter for PE/PM10 emissions.

The short-term PE/PM10 emission limitation was established from information, including proprietary production information, supplied by the permittee in the Application for PTI 14-05980 issued Final 11/27/2007 and Application A0050239 for FEPTIO P0116463:

3.25 pounds PE/PM10/batch, uncontrolled x (1 – 0.99 CE) = 0.033 pound PE/PM10/batch, controlled

b. Emission Limitation and Voluntary Restriction:

Emissions of volatile organic compounds (VOC) shall not exceed 0.20 pound per batch.

Applicable Compliance Method:

If required, compliance with the short-term VOC emissions limitation shall be demonstrated by emissions tests using methodology including, but not limited to, Method 25, as specified in 40 CFR Part 60, Appendix A.

If required to demonstrate compliance based on process data, the permittee may calculate the VOC emissions rate by using the following calculation or similar method for determining emissions:

actual throughput, pounds of product/batch x actual VOC content, pounds of VOC/pound of product = actual pounds of VOC/batch

The short-term VOC emission limitation was established from information, including proprietary production information, supplied by the permittee in the Application for PTI 14-05980 issued Final 11/27/2007 and Application A0050239 for FEPTIO P0116463:

0.20 pounds VOC/batch, uncontrolled

c. Emission Limitations:

PE/PM10 emissions shall not exceed 0.04 TPY.

VOC emissions shall not exceed 0.25 TPY.

Applicable Compliance Method:

If required, the permittee may calculate the PE/PM10 and VOC emissions rate by using the following calculations or similar methods for determining emissions:



i. For PE/PM10:

actual throughput, pounds of product(s)/year x actual solids content, pounds of solids/pound of product(s) x 0.01 pounds of PE/PM10/pound of solids x (1 – 0.99 CE) x 1 Ton/2000 pounds = actual TPY PE/PM10; and

ii. For VOC:

actual throughput, pounds of product(s)/year x actual VOC content, pounds of VOC/pound of product(s) x 1 Ton/2000 pounds = actual TPY VOC.

The annual PE/PM10 and VOC emission limitations were established from information, including proprietary production information, supplied by the permittee in the Application for PTI 14-05980 issued Final 11/27/2007 and Application A0050239 for FEPTIO P0116463:

0.033 pound PE/PM10/batch x 2502 batches/year x 1 Ton/2000 pounds = 0.04 TPY PE/PM10

0.20 pound VOC/batch x 2502 batches/year x 1 Ton/2000 pounds = 0.25 TPY VOC

PM10 and VOC can be shown to be less than 10 TPY each based on the uncontrolled potential to emit:

3.25 pounds PM10/batch, uncontrolled x 2502 batches/year x 1 Ton/2000 pounds = 4.07 TPY PM10

0.20 pound VOC/batch x 2502 batches/year x 1 Ton/2000 pounds = 0.25 TPY VOC

d. Emission Limitation:

Visible particulate emissions from the stack serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be demonstrated through visible emission observations performed in accordance with USEPA Method 9.

e. Emission Limitation:

PE shall not exceed 0.83 pound per hour based on Table I.



Applicable Compliance Method:

If required, compliance with the PE limitation shall be demonstrated by emissions tests using methodology including, but not limited to, Method 5, as specified in 40 CFR Part 60, Appendix A.

If required to demonstrate compliance based on process data, the permittee may calculate the PE emission rate by using the calculation in f)(1)a., and converting to pounds per hour, or similar method for determining emissions.

The SIP PE limitation was established from Table I of OAC rule 3745-17-11 using proprietary production information, supplied by the permittee in the Application for PTI 14-05980 issued Final 11/27/2007 and Application A0050239 for FEPTIO P0116463:

PWR (P) between 0.5 TPH and 30 TPH is considered Trade Secret

$$E = 4.10 (P)^{0.67} = 0.83 \text{ pound of PE per hour}$$

PE can be shown to be less than 10 TPY taking into account the Federally Enforceable rule limit:

$$0.83 \text{ pound PE/hour} \times 8760 \text{ hours/year} \times 1 \text{ Ton/2000 pounds} = 3.64 \text{ TPY PE}$$

g) Miscellaneous Requirements

- (1) None.



4. P005, Line #2

Operations, Property and/or Equipment Description:

Flavor capsules production - Line #2 film mix tank and feed tank, extruder, centrifuge, oil recovery, two pan dryers, finishing and packaging, equipment cleaning system

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

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

a. None.

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

a. b)(1)d., b)(2)e., b)(2)f., 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), as effective 11/30/01	Particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10) shall not exceed 0.26 pound per day and 0.05 tons per year (TPY). Emissions of volatile organic compounds (VOC) shall not exceed 11.4 pounds per day. See b)(2)a. and b)(2)b.
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)c.
c.	OAC rule 3745-31-05(C), as effective 12/01/06	See b)(2)d.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-31-05(D) Synthetic Minor to Avoid Title V requirements	Emissions of VOC shall not exceed 2.08 TPY, based upon a rolling, 12-month summation of the VOC emissions. See b)(2)e. and b)(2)f.
e.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
f.	OAC rule 3745-17-11(B)(1)	PE shall not exceed 0.551 pound per hour based on Table I. See b)(2)g.

(2) Additional Terms and Conditions

- a. At all times the source is in operation, the various emissions points shall be vented to the following control devices, as designed: wet scrubbers with a minimum control efficiency of 90% for VOC and PE/PM10, a venturi scrubber with a minimum control efficiency of 95% for PE/PM10, a cyclone with a minimum control efficiency of 75% for PE/PM10.
- b. 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, these emission limitations/control measures no longer apply.
- c. These rule paragraphs apply once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE from this source since the calculated annual emissions rate for PE is less than 10 TPY taking into account the Federally Enforceable rule limit of 0.551 pound per hour under OAC rule 3745-17-11(B)(1).

The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM10 emissions from this source since the uncontrolled potential to emit for PM10 is less than 10 TPY.



- d. 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.

FEPTIO P0116463 for this 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 BAT requirements under OAC rule 3745-31-05(A)(3):

- i. At all times the source is in operation, emissions shall be vented to a wet scrubber with a minimum control efficiency of 90% for VOC; and

- ii. Emissions of VOC from this source shall not exceed 2.08 TPY.

- e. At all times the source is in operation, emissions shall be vented to a wet scrubber with a minimum control efficiency of 90% for VOC.

- f. This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summation of the emissions, upon issuance of this permit.

- g. The SIP-based PE limit will be effective once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05. At that time, the BAT PE emission limitation will no longer apply.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

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

- a. The total VOC emissions from all batch operations in Line #2 pan dryers, in tons per month [the summation of the VOC emissions from each batch during the month multiplied by $(1 - CE/100)$ where CE equals the wet scrubber(s) VOC emission Control Efficiency, %]; and

- b. The updated rolling, 12-month summation of VOC emissions, in tons. This shall include the information for the current month and the preceding 11 calendar months.

- (2) In order to maintain compliance with the applicable emission limitation(s) and voluntary restriction contained in this permit, the acceptable range or limit for the pressure drop across the wet scrubbers, the venturi scrubber, and the cyclone shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range for the parameter(s) is established to demonstrate compliance.

- (3) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop across the scrubbers, the venturi scrubber, and the cyclone (in pounds per square inch, gauge) during operation of this emissions unit, including



periods of startup and shutdown. The permittee shall record the pressure drop across the scrubbers, the venturi scrubber, and the cyclone on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. The acceptable pressure drop(s) shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range for the parameter(s) is established to demonstrate compliance.

Whenever the monitored value for any parameter deviates from the range(s) or minimum limit(s) 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 control equipment parameters within the acceptable range(s), or at or above the minimum limit(s) 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:

- f. a description of the corrective action;
- g. the date the corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. 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.

This range and/or limit for the pressure drop(s) is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the



appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted range or limit for the pressure drop(s) based upon information obtained during future performance tests that demonstrate compliance with the allowable VOC and/or PE/PM10 emission rates for this/these emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

e) Reporting Requirements

- (1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. All deviations of the rolling, 12-month VOC emissions limitation;
 - ii. Each period of time (start time and date, and end time and date) when the pressure drop across the scrubbers was outside of the appropriate range or limit specified by the manufacturer and outside of the acceptable range following any required compliance demonstration; and
 - iii. Any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the scrubbers.
 - 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 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 Director (the appropriate District Office or local air agency).

- (3) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (4) The permittee shall identify in the annual PER the following information concerning the operations of the wet scrubbers 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 pressure drop across the scrubber, venturi scrubber, and/or cyclone was outside of the appropriate range or limit specified by the manufacturer and 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(s) was/were in operation and the process emissions were not vented to the scrubber, venturi scrubber, and/or cyclone;
 - 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 pressure drop(s) into compliance with the appropriate range or limit contained in this permit, 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.

f) **Testing Requirements**

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. **Emission Limitation:**

Particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10) shall not exceed 0.26 pound per day.



At all times the source is in operation, the various emissions points shall be vented to the following control devices, as designed: a wet scrubber with a minimum control efficiency of 90% for PE/PM10, a venturi scrubber with a minimum control efficiency of 95% for PE/PM10, a cyclone with a minimum control efficiency of 75% for PE/PM10.

Applicable Compliance Method:

If required, compliance with the short-term PE/PM10 emissions limitation shall be demonstrated by emissions tests using methodology including, but not limited to, Method 5, as specified in 40 CFR Part 60, Appendix A. The permittee may request to use an alternative method or procedure for the determination of Capture Efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. The control efficiencies (i.e., the percent reduction in mass emissions between the inlet and outlet of the control systems) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA.

If required to demonstrate compliance based on process data, the permittee may calculate the PE/PM10 emissions rate by using the following calculations or similar method for determining emissions:

- i. actual throughput, pounds of solids, film charge/batch x batches/day x 0.01 pound of PE/PM10/pound of solids, film charge x (1 – 0.95 CE) = pounds of PE/PM10, film charge/day;
- ii. actual throughput, pounds of solids, silica charge/batch x batches/day x 0.01 pound of PE/PM10/pound of solids, silica charge x (1 – 0.75 CE) x (1 – 0.90 CE) = pounds of PE/PM10, silica charge/day; and
- iii. the sum of i. + ii. above = pounds of PE/PM10/day, total

The pounds of PE/PM10/pound of solids Emission Factor is based on a conservative loss factor provided by the permittee in the Application for FEPTIO P0104168. The 95% CE is the Control Efficiency of the venturi scrubber, the 75% CE is the Control Efficiency of the cyclone, and the 90% CE is the Control Efficiency of the wet scrubber for PE/PM10 emissions.

The short-term PE/PM10 emission limitation was established from information, including proprietary production information, supplied by the permittee in the Application for FEPTIO P0104168 issued Final 3/13/2009 and Application A0050239 for FEPTIO P0116463:

0.80 pound PE/PM10/batch film charge, uncontrolled x (1 – 0.95 CE) x 6 batches/day = 0.24 pound PE/PM10/day



$0.16 \text{ pound PE/PM}_{10}/\text{batch silica charge, uncontrolled} \times (1 - 0.75 \text{ CE}) \times (1 - 0.90 \text{ CE}) \times 6 \text{ batches/day} = 0.02 \text{ pound PE/PM}_{10}/\text{day}$

$0.24 + 0.02 = 0.26 \text{ pound PE/PM}_{10}/\text{day}$

b. Emission Limitation:

Emissions of volatile organic compounds (VOC) shall not exceed 11.4 pounds per day.

Applicable Compliance Method:

If required, compliance with the short-term VOC emissions limitation shall be demonstrated by emissions tests using methodology including, but not limited to, Method 25, as specified in 40 CFR Part 60, Appendix A.

If required to demonstrate compliance based on process data, the permittee may calculate the VOC emissions rate by using the following calculation or similar method for determining emissions:

$\text{actual throughput, pounds of alcohol/batch} \times \text{actual VOC content, pounds of VOC/pound of alcohol} \times \text{batches/day} \times (1 - 0.90 \text{ CE}) = \text{pounds of VOC/day}$

The short-term VOC emission limitation was established from information, including proprietary production information, supplied by the permittee in the Application for FEPTIO P0104168 issued Final 3/13/2009 and Application A0050239 for FEPTIO P0116463:

$19 \text{ pounds of VOC/batch} \times 6 \text{ batches/day} \times (1 - 0.90 \text{ CE}) = 11.4 \text{ pounds of VOC/day}$

c. VOC Control Requirement and Voluntary Restriction:

At all times the source is in operation, emissions shall be vented to a wet scrubber with a minimum control efficiency of 90% for VOC.

Applicable Compliance Method:

If required, compliance shall be demonstrated by emissions tests using methodology including, but not limited to, Method 25, as specified in 40 CFR Part 60, Appendix A. The permittee may request to use an alternative method or procedure for the determination of Capture Efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA.



d. Emission Limitations and Voluntary Restriction:

Particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10) shall not exceed 0.05 tons per year (TPY).

Emissions of VOC shall not exceed 2.08 tons TPY, based upon a rolling, 12-month summation of the VOC emissions.

Applicable Compliance Method:

If required, the permittee may calculate the PE/PM10 emissions rate by using the following calculations or similar methods for determining emissions:

- i. actual throughput, pounds of solids, film charge/batch x batches/year x 0.01 pound of PE/PM10/pound of solids, film charge x (1 – 0.95 CE) x 1 Ton/2000 pounds = TPY PE/PM10, film charge;
- ii. actual throughput, pounds of solids, silica charge/batch x batches/year x 0.01 pound of PE/PM10/pound of solids, silica charge x (1 – 0.75 CE) x (1 – 0.90 CE) x 1 Ton/2000 pounds = TPY PE/PM10, silica charge; and
- iii. the sum of i. + ii. above = TPY PE/PM10, total

Compliance with the VOC emissions rate shall be demonstrated by the recordkeeping requirement in d)(1).

The annual PE/PM10 and VOC emission limitations were established from information, including proprietary production information, supplied by the permittee in the Application for FEPTIO P0104168 issued Final 3/13/2009 and Application A0050239 for FEPTIO P0116463:

0.26 pound PE/PM10/day, controlled x 365 days/year x 1 Ton/2000 pounds = 0.047 TPY PE/PM10, rounded to 0.05 TPY PE/PM10

11.4 pounds of VOC/day, controlled x 365 days/year x 1 Ton/2000 pounds = 2.08 TPY VOC

e. Emission Limitation:

Visible particulate emissions from the stack serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be demonstrated through visible emission observations performed in accordance with USEPA Method 9.



f. Emission Limitation:

PE shall not exceed 0.551 pound per hour based on Table I.

Applicable Compliance Method:

If required, compliance with the PE limitation shall be demonstrated by emissions tests using methodology including, but not limited to, Method 5, as specified in 40 CFR Part 60, Appendix A. The permittee may request to use an alternative method or procedure for the determination of Capture Efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995.

If required to demonstrate compliance based on process data, the permittee may calculate the PE emission rate by using the calculation in f)(1)a. or similar method for determining emissions.

The SIP PE limitation was established from Table I of OAC rule 3745-17-11 using proprietary production information, supplied by the permittee in the Application for FEPTIO P0104168 issued Final 3/13/2009 and Application A0050239 for FEPTIO P0116463:

PWR (P) between 0 TPH and 0.05 TPH is considered Trade Secret

$E = 0.551$ pounds of PE per hour

PE can be shown to be less than 10 TPY taking into account the Federally Enforceable rule limit:

$0.551 \text{ pound PE/hour} \times 8760 \text{ hours/year} \times 1 \text{ Ton/2000 pounds} = 2.41 \text{ TPY PE}$

g) Miscellaneous Requirements

(1) None.



5. P006, Line #3

Operations, Property and/or Equipment Description:

Flavor capsules production - Line #3 film mix tank and feed tank, extruder, centrifuge, one pan coater, one fluid bed dryer, product finishing and packaging operations, equipment cleaning systems.

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

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

a. None.

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

a. None.

b) **Applicable Emissions Limitations and/or Control Requirements**

(1) The specific 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	Particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10) shall not exceed 0.21 pound per day and 0.04 tons per year (TPY). Emissions of volatile organic compounds (VOC) shall not exceed 0.21 pound per day and 0.04 TPY. See b)(2)a. and b)(2)b.
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)c.
c.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by rule.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-11(B)(1)	PE shall not exceed 0.551 pound per hour based on Table I. See b)(2)d.

(2) Additional Terms and Conditions

- a. At all times the source is in operation, the various emissions points shall be vented to the following control devices, as designed: wet scrubbers with a minimum control efficiency of 90% for VOC and PE/PM10, a venturi scrubber with a minimum control efficiency of 95% for PE/PM10, a cyclone with a minimum control efficiency of 75% for PE/PM10.
- b. 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, these emission limitations/control measures no longer apply.
- c. These rule paragraphs apply once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE from this source since the calculated annual emissions rate for PE is less than 10 TPY taking into account the Federally Enforceable rule limit of 0.551 pound per hour under OAC rule 3745-17-11(B)(1).

The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM10 and VOC emissions from this source since the uncontrolled potential to emit for PM10 is less than 10 TPY each.

- d. The SIP-based PE limit will be effective once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05. At that time, the BAT PE emission limitation will no longer apply.

c) Operational Restrictions

- (1) None.



d) **Monitoring and/or Recordkeeping Requirements**

- (1) In order to maintain compliance with the applicable emission limitation(s) and voluntary restriction contained in this permit, the acceptable range or limit for the pressure drop across the wet scrubbers, the venturi scrubber, and the cyclone shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range for the parameter(s) is established to demonstrate compliance.
- (2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop across the scrubbers, the venturi scrubber, and the cyclone (in pounds per square inch, gauge) during operation of this emissions unit, including periods of startup and shutdown. The permittee shall record the pressure drop across the scrubbers, the venturi scrubber, and the cyclone on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. The acceptable pressure drop(s) shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range for the parameter(s) is established to demonstrate compliance.

Whenever the monitored value for any parameter deviates from the range(s) or minimum limit(s) 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 control equipment parameters within the acceptable range(s), or at or above the minimum limit(s) 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:

- f. a description of the corrective action;
- g. the date the corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;



- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. 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.

This range and/or limit for the pressure drop(s) is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted range or limit for the pressure drop(s) based upon information obtained during future performance tests that demonstrate compliance with the allowable VOC and/or PE/PM10 emission rates for this/these emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

e) Reporting Requirements

- (1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (3) The permittee shall identify in the annual PER the following information concerning the operations of the wet scrubbers 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 pressure drop across the scrubber, venturi scrubber, and/or cyclone was outside of the appropriate range or limit specified by the manufacturer and 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(s) was/were in operation and the process emissions were not vented to the scrubber, venturi scrubber, and/or cyclone;
- 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 pressure drop(s) into compliance with the appropriate range or limit contained in this permit, 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.

f) **Testing Requirements**

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

Particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10) shall not exceed 0.21 pound per day.

At all times the source is in operation, the various emissions points shall be vented to the following control devices, as designed: wet scrubbers with a minimum control efficiency of 90% for PE/PM10, a venturi scrubber with a minimum control efficiency of 95% for PE/PM10, a cyclone with a minimum control efficiency of 75% for PE/PM10.

Applicable Compliance Method:

If required, compliance with the short-term PE/PM10 emissions limitation shall be demonstrated by emissions tests using methodology including, but not limited to, Method 5, as specified in 40 CFR Part 60, Appendix A. The permittee may request to use an alternative method or procedure for the determination of Capture Efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. The control efficiencies (i.e., the percent reduction in mass emissions between the inlet and outlet of the control systems) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA.

If required to demonstrate compliance based on process data, the permittee may calculate the PE/PM10 emissions rate by using the following calculations or similar method for determining emissions:



- i. actual throughput, pounds of solids/batch x batches/day x 0.01 pound of PE/PM10/pound of solids x (1 – 0.95 CE) = pounds of PE/PM10, solids charge;
- ii. FB dryer uncontrolled loss, pounds PE/PM10/batch x batches/day x (1 – 0.75 CE) x (1 – 0.90 CE) x (1 – 0.90 CE) = pounds of PE/PM10, FB dryer; and
- iii. the sum of i. + ii. above = pounds of PE/PM10/day, total

The pounds of PE/PM10/pound of solids Emission Factor is based on a conservative loss factor provided by the permittee in the Application for FEPTIO P0104168. The 95% CE is the Control Efficiency of the venturi scrubber, the 75% CE is the Control Efficiency of the cyclone, and the 90% CE is the Control Efficiency of the wet scrubbers for PE/PM10 emissions.

The short-term PE/PM10 emission limitation was established from information, including proprietary production information, supplied by the permittee in the Application for FEPTIO P0104168 issued Final 3/13/2009 and Application A0050239 for FEPTIO P0116463:

0.13 pound PE/PM10/batch solids, uncontrolled x (1 – 0.95 CE) x 12 batches/day = 0.078 pound PE/PM10/day, rounded to 0.08 pound PE/PM10/day

4.38 pound PE/PM10/batch FB dryer, uncontrolled x (1 – 0.75 CE) x (1 – 0.90 CE) x (1 – 0.90 CE) x 12 batches/day = 0.13 pound PE/PM10/day

0.08 + 0.13 = 0.21 pound PE/PM10/day

- b. Emission Limitation:

Emissions of volatile organic compounds (VOC) shall not exceed 0.21 pound per day.

At all times the source is in operation, emissions shall be vented to a wet scrubber with a minimum control efficiency of 90% for VOC.

Applicable Compliance Method:

If required, compliance with the short-term VOC emissions limitation shall be demonstrated by emissions tests using methodology including, but not limited to, Method 25, as specified in 40 CFR Part 60, Appendix A. The permittee may request to use an alternative method or procedure for the determination of Capture Efficiency in accordance with the USEPA’s “Guidelines for Determining Capture Efficiency,” dated January 9, 1995. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA.



If required to demonstrate compliance based on process data, the permittee may calculate the VOC emissions rate by using the following calculation or similar method for determining emissions:

actual throughput, pounds of alcohol/batch x actual VOC content, pounds of VOC/pound of alcohol x batches/day x (1 – 0.90 CE) x (1 – 0.90 CE) = pounds of VOC/day

The short-term VOC emission limitation was established from information, including proprietary production information, supplied by the permittee in the Application for FEPTIO P0104168 issued Final 3/13/2009 and Application A0050239 for FEPTIO P0116463:

1.72 pounds of VOC/batch x 6 batches/day x (1 – 0.90 CE) x (1 – 0.90 CE) = 0.21 pound of VOC/day

c. Emission Limitations:

Particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10) shall not exceed 0.04 tons per year (TPY).

Emissions of VOC shall not exceed 0.04 tons TPY.

Applicable Compliance Method:

If required, the permittee may calculate the PE/PM10 and VOC emissions rate by using the following calculations or similar methods for determining emissions:

- i. actual throughput, pounds of solids/batch x batches/year x 0.01 pound of PE/PM10/pound of solids x (1 – 0.95 CE) x 1 Ton/2000 pounds = TPY PE/PM10, solids charge;
- ii. FB dryer uncontrolled loss, pounds PE/PM10/batch x batches/year x (1 – 0.75 CE) x (1 – 0.90 CE) x (1 – 0.90 CE) x 1 Ton/2000 pounds = TPY PE/PM10, FB dryer;
- iii. the sum of i. + ii. above = TPY PE/PM10/day, total; and
- iv. actual throughput, pounds of alcohol/batch x actual VOC content, pounds of VOC/pound of alcohol x batches/year x (1 – 0.90 CE) x (1 – 0.90 CE) x 1 Ton/2000 pounds = TPY VOC

The annual PE/PM10 and VOC emission limitations were established from information, including proprietary production information, supplied by the permittee in the Application for FEPTIO P0104168 issued Final 3/13/2009 and Application A0050239 for FEPTIO P0116463:

0.21 pound PE/PM10/day, controlled x 365 days/year x 1 Ton/2000 pounds = 0.04 TPY PE/PM10



0.21 pound VOC/day, controlled x 365 days/year x 1 Ton/2000 pounds = 0.04 TPY VOC

d. Emission Limitation:

Visible particulate emissions from the stack serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be demonstrated through visible emission observations performed in accordance with USEPA Method 9.

e. Emission Limitation:

PE shall not exceed 0.551 pound per hour based on Table I.

Applicable Compliance Method:

If required, compliance with the PE limitation shall be demonstrated by emissions tests using methodology including, but not limited to, Method 5, as specified in 40 CFR Part 60, Appendix A. The permittee may request to use an alternative method or procedure for the determination of Capture Efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995.

If required to demonstrate compliance based on process data, the permittee may calculate the PE emission rate by using the calculation in f)(1)a. or similar method for determining emissions.

The SIP PE limitation was established from Table I of OAC rule 3745-17-11 using proprietary production information, supplied by the permittee in the Application for FEPTIO P0104168 issued Final 3/13/2009 and Application A0050239 for FEPTIO P0116463:

PWR (P) between 0 TPH and 0.05 TPH is considered Trade Secret

$E = 0.551$ pounds of PE per hour

PE can be shown to be less than 10 TPY taking into account the Federally Enforceable rule limit:

0.551 pound PE/hour x 8760 hours/year x 1 Ton/2000 pounds = 2.41 TPY PE

g) Miscellaneous Requirements

(1) None.



6. P007, Line #4

Operations, Property and/or Equipment Description:

Flavor capsules production - film mix tank and feed tank, extruder, centrifuge, pan coater, fluid bed-dryer, product finishing and packaging operations and equipment cleaning systems.

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

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

a. None.

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

a. None.

b) **Applicable Emissions Limitations and/or Control Requirements**

(1) The specific 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	Particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10) shall not exceed 0.21 pound per day and 0.04 tons per year (TPY). Emissions of volatile organic compounds (VOC) shall not exceed 0.21 pound per day and 0.04 TPY. See b)(2)a. and b)(2)b.
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)c.
c.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by rule.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-11(B)(1)	PE shall not exceed 0.551 pound per hour based on Table I. See b)(2)d.

(2) Additional Terms and Conditions

- a. At all times the source is in operation, the various emissions points shall be vented to the following control devices, as designed: wet scrubbers with a minimum control efficiency of 90% for VOC and PE/PM10, a venturi scrubber with a minimum control efficiency of 95% for PE/PM10, a cyclone with a minimum control efficiency of 75% for PE/PM10.
- b. 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, these emission limitations/control measures no longer apply.
- c. These rule paragraphs apply once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE from this source since the calculated annual emissions rate for PE is less than 10 TPY taking into account the Federally Enforceable rule limit of 0.551 pound per hour under OAC rule 3745-17-11(B)(1).

The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM10 and VOC emissions from this source since the uncontrolled potential to emit for PM10 is less than 10 TPY each.

- d. The SIP-based PE limit will be effective once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05. At that time, the BAT PE emission limitation will no longer apply.

c) Operational Restrictions

- (1) None.



d) **Monitoring and/or Recordkeeping Requirements**

- (1) In order to maintain compliance with the applicable emission limitation(s) and voluntary restriction contained in this permit, the acceptable range or limit for the pressure drop across the wet scrubbers, the venturi scrubber, and the cyclone shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range for the parameter(s) is established to demonstrate compliance.
- (2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop across the scrubbers, the venturi scrubber, and the cyclone (in pounds per square inch, gauge) during operation of this emissions unit, including periods of startup and shutdown. The permittee shall record the pressure drop across the scrubbers, the venturi scrubber, and the cyclone on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. The acceptable pressure drop(s) shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range for the parameter(s) is established to demonstrate compliance.

Whenever the monitored value for any parameter deviates from the range(s) or minimum limit(s) 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 control equipment parameters within the acceptable range(s), or at or above the minimum limit(s) 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:

- f. a description of the corrective action;
- g. the date the corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;



- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. 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.

This range and/or limit for the pressure drop(s) is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted range or limit for the pressure drop(s) based upon information obtained during future performance tests that demonstrate compliance with the allowable VOC and/or PE/PM10 emission rates for this/these emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

e) Reporting Requirements

- (1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (3) The permittee shall identify in the annual PER the following information concerning the operations of the wet scrubbers 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 pressure drop across the scrubber, venturi scrubber, and/or cyclone was outside of the appropriate range or limit specified by the manufacturer and 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(s) was/were in operation and the process emissions were not vented to the scrubber, venturi scrubber, and/or cyclone;
- 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 pressure drop(s) into compliance with the appropriate range or limit contained in this permit, 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.

f) **Testing Requirements**

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

Particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10) shall not exceed 0.21 pound per day.

At all times the source is in operation, the various emissions points shall be vented to the following control devices, as designed: wet scrubbers with a minimum control efficiency of 90% for PE/PM10, a venturi scrubber with a minimum control efficiency of 95% for PE/PM10, a cyclone with a minimum control efficiency of 75% for PE/PM10.

Applicable Compliance Method:

If required, compliance with the short-term PE/PM10 emissions limitation shall be demonstrated by emissions tests using methodology including, but not limited to, Method 5, as specified in 40 CFR Part 60, Appendix A. The permittee may request to use an alternative method or procedure for the determination of Capture Efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. The control efficiencies (i.e., the percent reduction in mass emissions between the inlet and outlet of the control systems) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA.

If required to demonstrate compliance based on process data, the permittee may calculate the PE/PM10 emissions rate by using the following calculations or similar method for determining emissions:



- i. actual throughput, pounds of solids/batch x batches/day x 0.01 pound of PE/PM10/pound of solids x (1 – 0.95 CE) = pounds of PE/PM10, solids charge;
- ii. FB dryer uncontrolled loss, pounds PE/PM10/batch x batches/day x (1 – 0.75 CE) x (1 – 0.90 CE) x (1 – 0.90 CE) = pounds of PE/PM10, FB dryer; and
- iii. the sum of i. + ii. above = pounds of PE/PM10/day, total

The pounds of PE/PM10/pound of solids Emission Factor is based on a conservative loss factor provided by the permittee in the Application for FEPTIO P0104168. The 95% CE is the Control Efficiency of the venturi scrubber, the 75% CE is the Control Efficiency of the cyclone, and the 90% CE is the Control Efficiency of the wet scrubbers for PE/PM10 emissions.

The short-term PE/PM10 emission limitation was established from information, including proprietary production information, supplied by the permittee in the Application for FEPTIO P0104168 issued Final 3/13/2009 and Application A0050239 for FEPTIO P0116463:

0.13 pound PE/PM10/batch solids, uncontrolled x (1 – 0.95 CE) x 12 batches/day = 0.078 pound PE/PM10/day, rounded to 0.08 pound PE/PM10/day

4.38 pound PE/PM10/batch FB dryer, uncontrolled x (1 – 0.75 CE) x (1 – 0.90 CE) x (1 – 0.90 CE) x 12 batches/day = 0.13 pound PE/PM10/day

0.08 + 0.13 = 0.21 pound PE/PM10/day

- b. Emission Limitation:

Emissions of volatile organic compounds (VOC) shall not exceed 0.21 pound per day.

At all times the source is in operation, emissions shall be vented to a wet scrubber with a minimum control efficiency of 90% for VOC.

Applicable Compliance Method:

If required, compliance with the short-term VOC emissions limitation shall be demonstrated by emissions tests using methodology including, but not limited to, Method 25, as specified in 40 CFR Part 60, Appendix A. The permittee may request to use an alternative method or procedure for the determination of Capture Efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA.



If required to demonstrate compliance based on process data, the permittee may calculate the VOC emissions rate by using the following calculation or similar method for determining emissions:

actual throughput, pounds of alcohol/batch x actual VOC content, pounds of VOC/pound of alcohol x batches/day x (1 – 0.90 CE) x (1 – 0.90 CE) = pounds of VOC/day

The short-term VOC emission limitation was established from information, including proprietary production information, supplied by the permittee in the Application for FEPTIO P0104168 issued Final 3/13/2009 and Application A0050239 for FEPTIO P0116463:

1.72 pounds of VOC/batch x 6 batches/day x (1 – 0.90 CE) x (1 – 0.90 CE) = 0.21 pound of VOC/day

c. Emission Limitations:

Particulate emissions (PE) and emissions of particulate matter 10 microns and less in diameter (PM10) shall not exceed 0.04 tons per year (TPY).

Emissions of VOC shall not exceed 0.04 tons TPY.

Applicable Compliance Method:

If required, the permittee may calculate the PE/PM10 and VOC emissions rate by using the following calculations or similar methods for determining emissions:

- i. actual throughput, pounds of solids/batch x batches/year x 0.01 pound of PE/PM10/pound of solids x (1 – 0.95 CE) x 1 Ton/2000 pounds = TPY PE/PM10, solids charge;
- ii. FB dryer uncontrolled loss, pounds PE/PM10/batch x batches/year x (1 – 0.75 CE) x (1 – 0.90 CE) x (1 – 0.90 CE) x 1 Ton/2000 pounds = TPY PE/PM10, FB dryer;
- iii. the sum of i. + ii. above = TPY PE/PM10/day, total; and
- iv. actual throughput, pounds of alcohol/batch x actual VOC content, pounds of VOC/pound of alcohol x batches/year x (1 – 0.90 CE) x (1 – 0.90 CE) x 1 Ton/2000 pounds = TPY VOC

The annual PE/PM10 and VOC emission limitations were established from information, including proprietary production information, supplied by the permittee in the Application for FEPTIO P0104168 issued Final 3/13/2009 and Application A0050239 for FEPTIO P0116463:

0.21 pound PE/PM10/day, controlled x 365 days/year x 1 Ton/2000 pounds = 0.04 TPY PE/PM10



0.21 pound VOC/day, controlled x 365 days/year x 1 Ton/2000 pounds = 0.04 TPY VOC

d. Emission Limitation:

Visible particulate emissions from the stack serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be demonstrated through visible emission observations performed in accordance with USEPA Method 9.

e. Emission Limitation:

PE shall not exceed 0.551 pound per hour based on Table I.

Applicable Compliance Method:

If required, compliance with the PE limitation shall be demonstrated by emissions tests using methodology including, but not limited to, Method 5, as specified in 40 CFR Part 60, Appendix A. The permittee may request to use an alternative method or procedure for the determination of Capture Efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995.

If required to demonstrate compliance based on process data, the permittee may calculate the PE emission rate by using the calculation in f)(1)a. or similar method for determining emissions.

The SIP PE limitation was established from Table I of OAC rule 3745-17-11 using proprietary production information, supplied by the permittee in the Application for FEPTIO P0104168 issued Final 3/13/2009 and Application A0050239 for FEPTIO P0116463:

PWR (P) between 0 TPH and 0.05 TPH is considered Trade Secret

E = 0.551 pounds of PE per hour

PE can be shown to be less than 10 TPY taking into account the Federally Enforceable rule limit:

0.551 pound PE/hour x 8760 hours/year x 1 Ton/2000 pounds = 2.41 TPY PE

g) Miscellaneous Requirements

(1) None.



7. Emissions Unit Group -Flavor Cap Line #s 1, 5, 6-10: P004,P008,P009,P010,P011,P012,P013,

EU ID	Operations, Property and/or Equipment Description
P004	Flavor capsules production - Line #1 film mix tank and feed tank, extruder, centrifuge, oil recovery, two pan dryers, finishing and packaging, equipment cleaning system
P008	Line #6 flavor capsules production - film mix tank and feed tank, extruder, centrifuge, oil recovery, two pan dryers, finishing and packaging, equipment cleaning system
P009	Line #7 flavor capsules production - film mix tank and feed tank, extruder, centrifuge, oil recovery, two pan dryers, finishing and packaging, equipment cleaning system
P010	Line #8 flavor capsules production - film mix tank and feed tank, extruder, centrifuge, oil recovery, two pan dryers, finishing and packaging, equipment cleaning system
P011	Line #5 flavor capsules production - film mix tank and feed tank, extruder, centrifuge, oil recovery, two pan dryers, finishing and packaging, equipment cleaning system, related utilities
P012	Flavor capsules production - Line #9 film mix tank and feed tank, extruder, centrifuge, oil recovery, two pan dryers, finishing and packaging, equipment cleaning system
P013	Flavor capsules production - Line #10 film mix tank and feed tank, extruder, centrifuge, oil recovery, two pan dryers, finishing and packaging, equipment cleaning system

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

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

a. None.

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

a. b)(1)d., b)(2)e., b)(2)f., d)(3), 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	See b)(2)a. and b)(2)b.
b.	OAC rule 3745-31-05(A)(3)(b)	See b)(2)c.
c.	OAC rule 3745-31-05(C), as effective 12/01/06	See b)(2)d.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-31-05(D) Synthetic Minor to Avoid Title V requirements	Emissions of VOC shall not exceed 2.08 tons TPY, based upon a rolling, 12-month summation of the VOC emissions, for each emission unit listed in the EU ID table. See b)(2)e. and b)(2)f.
e.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the stack(s) serving these emissions units shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
f.	OAC rule 3745-17-11(B)(1)	PE shall not exceed 0.551 pound per hour based on Table I, for each emission unit listed in the EU ID table. See b)(2)g.

(2) Additional Terms and Conditions

- a. At all times the sources are in operation, the various emissions points shall be vented to the following control devices, as designed: wet scrubbers with a minimum control efficiency of 90% for VOC and PE/PM10, venturi scrubbers with a minimum control efficiency of 95% for PE/PM10, cyclones with a minimum control efficiency of 75% for PE/PM10.
- b. 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, these emission limitations/control measures no longer apply.
- c. These rule paragraphs apply once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE from these sources since the calculated annual



emissions rate for PE is less than 10 TPY each taking into account the Federally Enforceable rule limit of 0.551 pound per hour under OAC rule 3745-17-11(B)(1).

The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM10 emissions from these sources since the uncontrolled potential to emit for PM10 is less than 10 TPY each.

- d. 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.

FEPTIO P0116463 for these sources 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 BAT requirements under OAC rule 3745-31-05(A)(3):

- i. At all times these sources are in operation, emissions shall be vented to wet scrubbers with a minimum control efficiency of 90% for VOC; and
- ii. Emissions of VOC from these sources shall not exceed 2.08 TPY, for each emission unit listed in the EU ID table.

- e. At all times these sources are in operation, emissions shall be vented to wet scrubbers with a minimum control efficiency of 90% for VOC.

- f. These emissions units have been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summations of the emissions, upon issuance of this permit.

- g. The SIP-based PE limit will be effective once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05. At that time, the BAT PE emission limitation will no longer apply.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information for each emission unit listed in the EU ID table:

- a. The total VOC emissions from all batch operations, in tons per month [the summation of the VOC emissions from each batch during the month multiplied by $(1 - CE/100)$ where CE equals the wet scrubber(s) VOC emission Control Efficiency, %]; and
- b. The updated rolling, 12-month summation of VOC emissions, in tons. This shall include the information for the current month and the preceding 11 calendar months.



- (2) In order to maintain compliance with the applicable emission limitation(s) and voluntary restriction contained in this permit, the acceptable range or limit for the pressure drop across the wet scrubbers, venturi scrubbers, and cyclones shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range for the parameter(s) is established to demonstrate compliance.

- (3) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop across the scrubbers, venturi scrubbers, and cyclones (in pounds per square inch, gauge) during operation of these emissions units, including periods of startup and shutdown. The permittee shall record the pressure drop across the scrubbers, venturi scrubbers, and cyclones on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. The acceptable pressure drop(s) shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range for the parameter(s) is established to demonstrate compliance.

Whenever the monitored value for any parameter deviates from the range(s) or minimum limit(s) 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 control equipment parameters within the acceptable range(s), or at or above the minimum limit(s) 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:

- f. a description of the corrective action;
- g. the date the corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;



- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. 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.

This range and/or limit for the pressure drop(s) is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted range or limit for the pressure drop(s) based upon information obtained during future performance tests that demonstrate compliance with the allowable VOC and/or PE/PM10 emission rates for this/these emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

e) Reporting Requirements

- (1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. All deviations of the rolling, 12-month VOC emissions limitations;
 - ii. Each period of time (start time and date, and end time and date) when the pressure drop across the scrubbers, venturi scrubbers, and/or cyclones was outside of the appropriate range or limit specified by the



manufacturer and outside of the acceptable range following any required compliance demonstration; and

- iii. Any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the scrubbers, venturi scrubbers, and/or cyclones.
- 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 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 Director (the appropriate District Office or local air agency).

- (3) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (4) The permittee shall identify in the annual PER the following information concerning the operations of the wet scrubbers, venturi scrubbers, and/or cyclones 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 pressure drop across the scrubbers, venturi scrubbers, and/or cyclones was outside of the appropriate range or limit specified by the manufacturer and 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(s) was/were in operation and the process emissions were not vented to the scrubbers, venturi scrubbers, and/or cyclones;
 - 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 pressure drop(s) into compliance with the appropriate range or limit contained in this permit, 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.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Control Requirements:

At all times the source is in operation, the various emissions points shall be vented to the following control devices, as designed: wet scrubbers with a minimum control efficiency of 90% for PE/PM10, venturi scrubbers with a minimum control efficiency of 95% for PE/PM10, cyclones with a minimum control efficiency of 75% for PE/PM10.

Applicable Compliance Method:

If required, compliance shall be demonstrated by emissions tests using methodology including, but not limited to, Method 5, as specified in 40 CFR Part 60, Appendix A. The permittee may request to use an alternative method or procedure for the determination of Capture Efficiency in accordance with the USEPA’s “Guidelines for Determining Capture Efficiency,” dated January 9, 1995. The control efficiencies (i.e., the percent reduction in mass emissions between the inlet and outlet of the control systems) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA.

- b. VOC Control Requirement and Voluntary Restriction:

At all times these sources are in operation, emissions shall be vented to wet scrubbers with a minimum control efficiency of 90% for VOC.

Applicable Compliance Method:

If required, compliance shall be demonstrated by emissions tests using methodology including, but not limited to, Method 25, as specified in 40 CFR Part 60, Appendix A. The permittee may request to use an alternative method or procedure for the determination of Capture Efficiency in accordance with the USEPA’s “Guidelines for Determining Capture Efficiency,” dated January 9, 1995. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA.



c. Emission Limitations and Voluntary Restriction:

Emissions of VOC shall not exceed 2.08 tons TPY, based upon a rolling, 12-month summation of the VOC emissions, for each emission unit listed in the EU ID table.

Applicable Compliance Method:

Compliance with the VOC emissions rates shall be demonstrated by the recordkeeping requirement in d)(1).

The annual VOC emission limitation was established from information, including proprietary production information, supplied by the permittee in the Applications for FEPTIOs P0107287, P0108065, P0110882, and P0112482 and Application A0050239 for FEPTIO P0116463:

11.4 pounds of VOC/day, controlled x 365 days/year x 1 Ton/2000 pounds = 2.08 TPY VOC

d. Emission Limitation:

Visible particulate emissions from the stack(s) serving these emissions units shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be demonstrated through visible emission observations performed in accordance with USEPA Method 9.

e. Emission Limitation:

PE shall not exceed 0.551 pound per hour based on Table I, for each emission unit listed in the EU ID table.

Applicable Compliance Method:

If required, compliance with the PE limitation shall be demonstrated by emissions tests using methodology including, but not limited to, Method 5, as specified in 40 CFR Part 60, Appendix A. The permittee may request to use an alternative method or procedure for the determination of Capture Efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995.

If required to demonstrate compliance based on process data, the permittee may calculate the PE emission rate by using the calculation in f)(1)a. or similar method for determining emissions.

The SIP PE limitation was established from Table I of OAC rule 3745-17-11 using proprietary production information, supplied by the permittee in the



Final Permit-to-Install and Operate

Mane, Inc.

Permit Number: P0116463

Facility ID: 1483060488

Effective Date: 5/6/2014

Applications for FEPTIOs P0107287, P0108065, P0110882, and P0112482 and Application A0050239 for FEPTIO P0116463:

PWR (P) between 0 TPH and 0.05 TPH is considered Trade Secret

E = 0.551 pounds of PE per hour

PE can be shown to be less than 10 TPY taking into account the Federally Enforceable rule limit:

$0.551 \text{ pound PE/hour} \times 8760 \text{ hours/year} \times 1 \text{ Ton}/2000 \text{ pounds} = 2.41 \text{ TPY PE}$

g) Miscellaneous Requirements

(1) None.