



Environmental  
Protection Agency

Ted Strickland, Governor  
Lee Fisher, Lt. Governor  
Chris Korleski, Director

10/27/2010

Mr. Gary Platek  
Turf Care Supply Corp. - Martins Ferry Plant  
50 PEARL RD, STE 200  
BRUNSWICK, OH 44212

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 0607090125  
Permit Number: P0106593  
Permit Type: OAC Chapter 3745-31 Modification  
County: Belmont

Certified Mail

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

Dear Permit Holder:

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

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

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

If you have any questions, please contact Ohio EPA DAPC, Southeast District Office at (740)385-8501 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. This permit can be accessed electronically on the DAPC Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc), by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

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

Cc: Ohio EPA-SEDO



**Ohio**

**Environmental  
Protection Agency**

**FINAL**

**Division of Air Pollution Control  
Permit-to-Install and Operate  
for  
Turf Care Supply Corp. - Martins Ferry Plant**

Facility ID: 0607090125  
Permit Number: P0106593  
Permit Type: OAC Chapter 3745-31 Modification  
Issued: 10/27/2010  
Effective: 10/27/2010  
Expiration: 10/27/2020





Division of Air Pollution Control
Permit-to-Install and Operate
for
Turf Care Supply Corp. - Martins Ferry Plant

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## Authorization

Facility ID: 0607090125

Application Number(s): A0039429

Permit Number: P0106593

Permit Description: Chapter 31 modifications of previously permitted EUs to address increases in throughput of equipment used to manufacture sulfur coated urea (SCU) and blend fertilizers; Chapter 31 modification of EUs not previously permitted are covered in Permit No. P0107032

Permit Type: OAC Chapter 3745-31 Modification

Permit Fee: \$11,500.00

Issue Date: 10/27/2010

Effective Date: 10/27/2010

Expiration Date: 10/27/2020

Permit Evaluation Report (PER) Annual Date: July 1 - June 30, Due Aug 15

This document constitutes issuance to:

Turf Care Supply Corp. - Martins Ferry Plant  
100 Picoma Rd.  
Martins Ferry, OH 43935

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

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

Ohio EPA DAPC, Southeast District Office  
2195 Front Street  
Logan, OH 43138  
(740)385-8501

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



Chris Korleski  
Director



## Authorization (continued)

Permit Number: P0106593  
Permit Description: Chapter 31 modifications of previously permitted EUs to address increases in throughput of equipment used to manufacture sulfur coated urea (SCU) and blend fertilizers; Chapter 31 modification of EUs not previously permitted are covered in Permit No. P0107032

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

- Emissions Unit ID: F008**  
Company Equipment ID: Sulfur Coat Plant - Inloading, Storage  
Superseded Permit Number: 17-1460  
General Permit Category and Type: Not Applicable
- Emissions Unit ID: P901**  
Company Equipment ID: Fertilizer Inloading/Offloading, Storage  
Superseded Permit Number: 17-1460  
General Permit Category and Type: Not Applicable
- Emissions Unit ID: P905**  
Company Equipment ID: Rotary Drum Sulfur Coating  
Superseded Permit Number: 17-547  
General Permit Category and Type: Not Applicable
- Emissions Unit ID: P906**  
Company Equipment ID: Cooler Sealant/Drum Vent  
Superseded Permit Number: 17-547  
General Permit Category and Type: Not Applicable
- Emissions Unit ID: P908**  
Company Equipment ID: Fertilizer Blending  
Superseded Permit Number: 17-639  
General Permit Category and Type: Not Applicable



## **A. Standard Terms and Conditions**

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

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

**2. Who is responsible for complying with this permit?**

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

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

**3. What records must I keep under this permit?**

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

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

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

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

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

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

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

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

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

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

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

**7. What reports must I submit under this permit?**

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

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

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

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

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

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

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

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Ohio EPA DAPC, Southeast District Office 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<sup>1</sup> a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emissions unit once the certification has been submitted to Ohio EPA by the authorized official.

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

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

**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

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

under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

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

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

## **B. Facility-Wide Terms and Conditions**

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

## **C. Emissions Unit Terms and Conditions**



1. F008, Sulfur Coated Urea Plant – inloading and storage of urea

Operations, Property and/or Equipment Description:

100 tons per hour urea inloading and storage equipment, partially enclosed, including one truck unloading station, one rail car unloading station, one inloading elevator and four conveyors; Chapter 31 modification to increase throughput to 876,000 tons per year; supercedes PTI No. 17-1460, EU F008, modified on April 16, 1997

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)     | <p>Fugitive particulate emissions (PE) shall not exceed 44.26 tons per year.</p> <p>Visible PE of fugitive dust discharging from the urea load-in operation uncontrolled transfer points or conveyors shall not exceed 20% opacity as a three minute average.</p> <p>No visible PE of fugitive dust discharging from the egress points of the enclosure for the controlled transfer points or conveyors.</p> <p>Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.</p> |



|    | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures                                                                                                |
|----|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
|    |                               | See b)(2)a.-d. below.                                                                                                                            |
| b. | OAC rule 3745-17-07(B)        | The emission limitation specified by this rule is equivalent to the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).       |
| c. | OAC rule 3745-17-08(B)        | The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |

(2) Additional Terms and Conditions

- a. The urea load-in and material handling operations that are covered by this permit and subject to the above-mentioned requirements are listed below:

- Truck unloading station (urea load-in)
- Rail car unloading station (urea load-in)
- Underground drag chain conveyor
- Urea inloading elevator
- Conveyors (3)
- Transfers to urea storage pile

- b. The permittee shall employ best available control measures for the above-identified material handling operations for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permit application, the permittee will maintain the partial enclosure of the above-mentioned material handling operations, and will maintain minimal drop heights. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- c. For each material handling operation that is not adequately enclosed, the above-identified control measures shall be implemented if the permittee determines, as a result of the inspection or daily VE check conducted pursuant to the monitoring section of this permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures shall continue during the operation of the material handling operations until further observation confirms that use of the control measure(s) is unnecessary.
- d. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) Except as otherwise provided in this section, the permittee shall perform inspections of the urea load-in and material handling operations in accordance with the following frequencies:

| <u>Material handling operation(s)</u>     | <u>Minimum inspection frequency</u> |
|-------------------------------------------|-------------------------------------|
| Truck unloading station (urea load-in)    | Daily                               |
| Rail car unloading station (urea load-in) | Daily                               |
| Underground drag chain conveyor           | Daily                               |

- (2) The above-mentioned inspections shall be performed during representative, normal operating conditions.
- (3) The purpose of the inspections is to determine the need for implementing the control measures specified in this permit for urea load-in and material handling operations. The inspections shall be performed during representative, normal operating conditions.
- (4) For the above-mentioned material handling operations, the permittee shall maintain records of the following information:
- a. the date and reason any required inspection was not performed;
  - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
  - c. the dates the control measures were implemented; and
  - d. on a calendar quarter basis, the total number of days the control measures were implemented.

The information in d)(4)d. shall be kept separately for each material handling operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

- (5) The permittee shall perform daily checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in a monitoring and recordkeeping log. If visible emissions are observed, the permittee shall also note the following in the monitoring and recordkeeping log:
- a. the color of the emissions;
  - b. the total duration of any visible emissions incident; and
  - c. any corrective actions taken to eliminate the visible emissions.

e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with the emission limitation(s) in b)(1) of this permit shall be determined in accordance with the following method(s):

- a. Emissions Limitation:  
 Fugitive PE shall not exceed 44.26 tons per year.

Applicable Compliance Method:

Compliance with the annual urea load-in emission limitation shall be demonstrated by the following one-time calculation based on the emission factors in AP-42 Section 13.2.4 (11/06) and a maximum annual throughput of 876,000 tons per year:

$$E = k(0.0032)[(U/5)^{1.3}/(M/2)^{1.4}]$$

Where:

- E = emission factor expressed in pounds per ton
- k = particle size multiplier for TSP (dimensionless) = 0.74
- U = mean wind speed expressed in miles per hour (MPH) = 9.075
- M = material moisture content (%) = 0.25

Therefore, E = 0.09445 lb PE/ton

$$\begin{aligned} PE &= [(\# \text{ load-in points})(\text{maximum annual throughput})(\text{load-in EF})]/2,000 \\ &\text{lbs/ton} \\ &= [(1)(876,000 \text{ tons})(0.09445 \text{ lb PE/ton})]/2,000 \text{ lb/ton} \\ &= 41.37 \text{ tons per year} \end{aligned}$$

Compliance with the annual material handling operation emission limitation shall be demonstrated by the following one-time calculation based on the emission factors in AP-42 Section 11.19.2 (8/04), 70% control efficiency (CE) for partially enclosed transfer points from RACM Table 2.1.3-3 and a maximum annual throughput of 876,000 tons per year:

$$\begin{aligned} PE &= [(\# \text{ of uncontrolled transfer points})(\text{maximum annual throughput})(\text{transfer points EF}) + (\# \text{ of controlled transfer points})(\text{maximum annual throughput})(\text{transfer points EF})(70\% \text{ CE})]/2,000 \text{ lbs/ton} \\ &= [(1)(876,000 \text{ tons per year})(0.003 \text{ lbs/ton}) + (4)(876,000 \text{ tons per year})(0.003)(1-0.70)]/2,000 \text{ lbs/ton} \\ &= 2.89 \text{ tons per year} \end{aligned}$$

$$\text{Total fugitive PE} = 41.37 \text{ TPY} + 2.89 \text{ TPY} = 44.26 \text{ tons per year}$$

- b. Emissions Limitation:  
Visible PE of fugitive dust discharging from the urea load-in operation uncontrolled transfer points or conveyors shall not exceed 20% opacity as a three minute average.

Applicable Compliance Method:

If required, visible particulate emissions shall be determined according to USEPA Method 9.

- c. Emissions Limitation:  
No visible PE of fugitive dust discharging from the egress points of the enclosure for the controlled transfer points or conveyors.

Applicable Compliance Method:

If required, visible emissions of fugitive dust shall be determined according to USEPA Method 22.

- g) Miscellaneous Requirements

- (1) None.



2. P901, Highbay inloading, offloading and storage

Operations, Property and/or Equipment Description:

Highbay inloading, offloading and storage equipment; includes rail car and truck loading of urea and fertilizer via load-out chute at a maximum rate of 67 tons per hour controlled with a baghouse and/or partially enclosed, rail car and truck unloading of urea at a maximum rate of 200 tons per hour controlled with a baghouse and partial enclosure, one 100 tons per hour screener, three bucket elevators and six conveyor transfer points controlled with a baghouse, and 11 conveyor transfer points partially enclosed; Chapter 31 modification to increase throughput of unloaded urea to 1,752,000 tons per year and throughput of loaded fertilizer and urea to 586,920 tons per year; supercedes PTI No. 17-547, EU F002, issued on September 2, 1987 and PTI No. 17-1460, EU F003, issued on April 16, 1997

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)     | Particulate emissions (PE) from the baghouse stack shall not exceed 0.21 pound per hour and 0.91 ton per year.<br><br>Fugitive PE shall not exceed 11.69 tons per year.<br><br>No visible PE from the baghouse stack and no visible emissions of fugitive dust.<br><br>Best available control measures that are sufficient to eliminate visible emissions of |



|    | Applicable Rules/Requirements                                                                        | Applicable Emissions Limitations/Control Measures                                                                                                       |
|----|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |                                                                                                      | fugitive dust.<br><br>See b)(2)a.-e. below.                                                                                                             |
| b. | OAC rule 3745-17-07(A)<br>OAC rule 3745-17-07(B)<br>OAC rule 3745-17-08(B)<br>OAC rule 3745-17-11(B) | The emissions limitations specified by these rules are less stringent than the emissions limitations established pursuant to OAC rule 3745-31-05(A)(3). |

(2) Additional Terms and Conditions

- a. The emissions from the rail car and truck loading/unloading, screener, three bucket elevators and six controlled conveyor transfer points shall be vented to the baghouse at all times the emissions unit is in operation.
- b. The material handling operations that are covered by this permit and subject to the above-mentioned requirements are listed below:
  - Rail car unloading and loading
  - Truck unloading and loading
  - North feed conveyor
  - South feed conveyor
  - North elevator
  - South elevator
  - Screener
  - Screener elevator
  - North belt transfer points (4)
  - South belt transfer points (4)
  - Floor bins transfer points (3)
  - Loadout hopper
  - Loadout elevator
- c. The permittee shall employ best available control measures for the above-identified material handling operations for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permit application, the permittee will maintain the partial enclosure of the above-mentioned material handling operations, and will ensure that the baghouse captures 90% of the emissions from the rail car and truck unloading, screener, three bucket elevators and the two additional controlled conveyor transfer points. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- d. For each material handling operation that is not adequately enclosed, the above-identified control measures shall be implemented if the permittee determines, as a result of the daily VE check conducted pursuant to the monitoring section of this permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures shall continue during the operation of the material handling

operations until further observation confirms that use of the control measure(s) is unnecessary.

- e. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform daily checks, when the emissions unit is in operation, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in a monitoring and recordkeeping log. If visible emissions are observed, the permittee shall also note the following in the monitoring and recordkeeping log:

- a. the color of the emissions;
- b. the total duration of any visible emissions incident; and
- c. any corrective actions taken to eliminate the visible emissions.

e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with the emission limitation(s) in b)(1) of this permit shall be determined in accordance with the following method(s):
  - a. Emissions Limitations:  
PE from the baghouse stack shall not exceed 0.21 pound per hour and 0.91 ton per year.  
Fugitive PE shall not exceed 11.69 tons per year.

Applicable Compliance Method:

Compliance with the emissions limitations shall be demonstrated by the following one-time calculations based on the emission factors in AP-42 Section 11.19.2

(8/04) and AP-42 Section 13.2.4 (11/06) and a baghouse with 90% capture efficiency and 99% control efficiency, 70% control efficiency for the building enclosure from RACM Table 2.1.3-3, a maximum hourly throughput of 67 tons for urea and fertilizer loadout, a maximum hourly throughput of inloaded urea of 200 tons per hour, a maximum hourly screening rate of 100 tons per hour, a maximum annual throughput of urea and fertilizer loadout of 586,920 tons and a maximum annual throughput of urea inloaded of 1,752,000 tons, and a maximum annual throughput of urea screened of 876,000 tons:

$$E = k(0.0032)[(U/5)^{1.3}/(M/2)^{1.4}]$$

Where:

E = emission factor expressed in pound per ton

k = particle size multiplier for TSP (dimensionless) = 0.74

U = mean wind speed expressed in miles per hour (MPH) = 9.075

M = material moisture content (%) = 0.25

Therefore, E = 0.09445 lb PE/ton

$$\begin{aligned} \text{PE (lb/hr stack)} &= [(\# \text{ of load-in points})(\text{maximum hourly throughput})(\text{load-in EF}) + (\# \text{ of controlled transfer points})(\text{maximum hourly throughput})(\text{transfer point EF}) + (\# \text{ of screeners})(\text{maximum hourly throughput})(\text{scrubber EF})] \\ &= [(2)(100 \text{ tons per hour})(0.095 \text{ lb/ton}) + (5)(100 \text{ tons per hour})(0.003 \text{ lb/ton}) + (1)(100 \text{ tons per hour})(0.025 \text{ lb/ton})] \\ &= 23.0 \text{ lb/hr uncontrolled PE} \times 0.90 \times (1-0.99) \\ &= 0.21 \text{ lb/hr} \end{aligned}$$

If required, particulate emissions shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

$$\begin{aligned} \text{PE (ton/yr stack)} &= [(\# \text{ of load-in points})(\text{maximum annual throughput})(\text{load-in EF}) + (\# \text{ of controlled transfer points})(\text{maximum annual throughput})(\text{transfer points EF}) + (\# \text{ of screeners})(\text{maximum annual throughput})(\text{scrubber EF})]/2,000 \text{ lbs/ton} \\ &= [(2)(876,000 \text{ tons per year})(0.095 \text{ lb/ton}) + (5)(876,000 \text{ tons per year})(0.003 \text{ lb/ton}) + (1)(876,000 \text{ tons per year})(0.025 \text{ lb/ton})]/2,000 \text{ lbs/ton} \\ &= 100.74 \text{ tons per year uncontrolled PE} \times 0.90 \times (1-0.99) \\ &= 0.91 \text{ tons per year} \end{aligned}$$

$$\text{PE (fugitive)} = [(\# \text{ of uncontrolled transfer points})(\text{maximum annual throughput})(\text{transfer points EF}) + [(\# \text{ of load-in points})(\text{maximum annual throughput})(\text{loadout EF}) + (\# \text{ of controlled transfer points})(\text{maximum annual throughput})(\text{transfer points EF}) + (\# \text{ of$$



$$\begin{aligned}
& \text{screeners})(\text{maximum annual throughput})(\text{scrubber} \\
& \text{EF)]}/2,000 \\
= & [(11)(1,752,000 \text{ tons per year})(0.003)(1-0.70) + \\
& [(2)(876,000 \text{ tons per year})(0.095 \text{ lb/ton})(1-0.90)(1-0.70) + \\
& (5)(876,000 \text{ tons per year})(0.003 \text{ lb/ton})(1-0.90)(1-0.70) + \\
& (1)(876,000 \text{ tons per year})(0.025 \text{ lb/ton})(1-0.90)(1- \\
& 0.70)]/2,000 \text{ lbs/ton} \\
= & 11.69 \text{ tons per year}
\end{aligned}$$

- b. Emissions Limitations:  
No visible PE from the baghouse stack and no visible emissions of fugitive dust.

Applicable Compliance Method:  
If required, visible particulate emissions shall be determined according to USEPA Method 22.

g) Miscellaneous Requirements

- (1) None.



3. P905, Sulfur Coated Urea Plant - rotary drum sulfur coating

Operations, Property and/or Equipment Description:

17 ton per hour urea rotary sulfur coat drum process partially enclosed including one sulfur coating drum controlled with a rotoclone, one discharge belt and one discharge elevator; Chapter 31 modification to increase throughput to 148,920 tons per year; supercedes PTI No. 17-547, EU P005, issued on September 2, 1987

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)                        | <p>Particulate emissions (PE) from the rotoclone stack shall not exceed 0.321 pound per hour and 1.41 tons per year.</p> <p>Fugitive PE shall not exceed 0.14 ton per year.</p> <p>No visible PE from the rotoclone stack and no visible emissions of fugitive dust.</p> <p>Best available control measures that are sufficient to eliminate visible emissions of fugitive dust.</p> <p>See b)(2)a.-e. below.</p> |
| b. | OAC rule 3745-17-07(A)<br>OAC rule 3745-17-07(B) | The emissions limitations specified by these rules are less stringent than the                                                                                                                                                                                                                                                                                                                                    |



|  | Applicable Rules/Requirements                    | Applicable Emissions Limitations/Control Measures                        |
|--|--------------------------------------------------|--------------------------------------------------------------------------|
|  | OAC rule 3745-17-08(B)<br>OAC rule 3745-17-11(B) | emissions limitations established pursuant to OAC rule 3745-31-05(A)(3). |

(2) Additional Terms and Conditions

- a. The emissions from the sulfur coating drum shall be vented to the rotoclone at all times the emissions unit is in operation.
- b. The material handling operations that are covered by this permit and subject to the above-mentioned requirements are listed below:  
  
Sulfur coating drum  
Discharge belt  
Discharge elevator
- c. The permittee shall employ best available control measures for the above-identified material handling operations for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permit application, the permittee will maintain the partial enclosure of the above-mentioned material handling operations, and will ensure that the rotoclone captures 100% of the emissions from the sulfur coating drum. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- d. For each material handling operation that is not adequately enclosed, the above-identified control measures shall be implemented if the permittee determines, as a result of the daily VE checks conducted pursuant to the monitoring section of this permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures shall continue during the operation of the material handling operations until further observation confirms that use of the control measure(s) is unnecessary.
- e. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform daily checks, when the emissions unit is in operation, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in

a monitoring and recordkeeping log. If visible emissions are observed, the permittee shall also note the following in the monitoring and recordkeeping log:

- a. the color of the emissions;
- b. the total duration of any visible emissions incident; and
- c. any corrective actions taken to eliminate the visible emissions.

e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with the emission limitation(s) in b)(1) of this permit shall be determined in accordance with the following method(s):
  - a. Emissions Limitations:  
 PE from the rotoclone stack shall not exceed 0.321 pound per hour and 1.41 tons per year.  
 Fugitive PE shall not exceed 0.14 ton per year.

**Applicable Compliance Method:**

Compliance with the hourly emissions limitation is based upon the results of the October 27, 2005 stack test of the rotoclone exhaust stack.

If required, particulate emissions shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

Compliance with the annual emissions limitations shall be demonstrated by the following one-time calculations based on emissions factors in AP-42 Section 11.19.2 (8/04), the emission factor of 0.321 lb/hr from the October 27, 2005 stack test of the rotoclone, 100% capture efficiency and 90% control efficiency for the rotoclone, 70% control efficiency for the building enclosure from RACM Table 2.1.3-3, a maximum hourly throughput rate of 17 tons and a maximum annual throughput of 148,920 tons:

$$PE \text{ (ton/yr stack)} = \frac{[(\text{emission factor for rotoclone} \times 8,760 \text{ hours per year}) / 2,000 \text{ lbs/ton}] \times 17 \text{ tons}}{148,920 \text{ tons}}$$



= (0.321 lb/hr X 8,760)/2,000  
= 1.41 tons per year

PE (fugitive) = (# of uncontrolled transfer points)(maximum annual throughput)(transfer points EF)/2,000 lbs/ton  
= (2)(148,920 tons per year)(0.003 lb/ton)/2,000 lbs/ton  
= 0.45 ton per year uncontrolled PE

0.45 ton per year X (1-0.70) = 0.14 ton per year

- b. Emissions Limitations:  
No visible PE from the rotoclone stack and no visible emissions of fugitive dust.

Applicable Compliance Method:  
If required, visible particulate emissions shall be determined according to USEPA Method 22.

g) Miscellaneous Requirements

- (1) None.



4. P906, Sulfur Coated Urea Plant – cooler/sealant drum

Operations, Property and/or Equipment Description:

17 ton per hour sealant drum controlled with a baghouse, skimmer cyclone and rotoclone, a micronutrient add station controlled with a baghouse, a natural gas-fired cooler with a 1.0 mmBTU/hr burner controlled with a skimmer cyclone and rotoclone and one micronutrient discharge elevator partially enclosed; Chapter 31 modification to increase throughput to 148,920 tons per year; supercedes PTI No. 17-547, EU P006, issued 9/2/87

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)     | <p>Particulate emissions (PE) from the combined baghouse/rotoclone stack shall not exceed 0.09 pound per hour and 0.41 ton per year.</p> <p>Fugitive PE shall not exceed 0.08 ton per year.</p> <p>No visible PE from the combined baghouse/rotoclone stack and no visible emissions of fugitive dust.</p> <p>Best available control measures that are sufficient to eliminate visible emissions of fugitive dust.</p> |



|    | Applicable Rules/Requirements                                                                        | Applicable Emissions Limitations/Control Measures                                                                                                       |
|----|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |                                                                                                      | See b)(2)a.-e. below.                                                                                                                                   |
| b. | OAC rule 3745-17-07(A)<br>OAC rule 3745-17-07(B)<br>OAC rule 3745-17-08(B)<br>OAC rule 3745-17-11(B) | The emissions limitations specified by these rules are less stringent than the emissions limitations established pursuant to OAC rule 3745-31-05(A)(3). |

(2) Additional Terms and Conditions

- a. The emissions from this emissions unit shall be vented to the baghouse, skimmer cyclone and rotoclone at all times the emissions unit is in operation, except for the emissions generated from the partially enclosed micronutrient add station.
- b. The material handling operations that are covered by this permit and subject to the above-mentioned requirements are listed below:  
  
  - Micronutrients add station
  - Micronutrient discharge elevator
  - Sealant drum
  - Natural gas-fired cooler
- c. The permittee shall employ best available control measures for the above-identified material handling operations for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permit application, the permittee will maintain the partial enclosure of the above-mentioned material handling operations, will ensure that the baghouse captures 90% of the emissions from the micronutrient add process and will ensure that the skimmer cyclone and rotoclone capture 100% of the emissions from the sealant drum and cooler not already vented to the baghouse. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- d. For each material handling operation that is not adequately enclosed, the above-identified control measures shall be implemented if the permittee determines, as a result of the daily VE checks conducted pursuant to the monitoring section of this permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures shall continue during the operation of the material handling operations until further observation confirms that use of the control measure(s) is unnecessary.
- e. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform daily checks, when the emissions unit is in operation, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in a monitoring and recordkeeping log. If visible emissions are observed, the permittee shall also note the following in the monitoring and recordkeeping log:
  - a. the color of the emissions;
  - b. the total duration of any visible emissions incident; and
  - c. any corrective actions taken to eliminate the visible emissions.

e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with the emission limitation(s) in b)(1) of this permit shall be determined in accordance with the following method(s):
  - a. Emissions Limitations:  
PE from the combined baghouse/rotoclone stack shall not exceed 0.09 pound per hour and 0.40 ton per year.  
Fugitive PE shall not exceed 0.08 ton per year.

Applicable Compliance Method:

Compliance with the emissions limitation shall be demonstrated by the following one-time calculations based on emissions factors in AP-42 Section 11.19.2 (8/04), the emission factor of 0.91 lb/hr from the December 30, 2005 stack test of the exhaust from the skimmer cyclone, 90% capture efficiency and 99% control efficiency for the baghouse, 100% capture efficiency and 90% control efficiency for the rotoclone, 70% control efficiency for the building enclosure from RACM Table 2.1.3-3, a maximum hourly throughput rate of 17 tons and a maximum annual throughput of 148,920 tons:

$$\text{PE (lb/hr stack)} = \frac{[(\# \text{ of transfer points controlled by the baghouse})(\text{maximum hourly throughput})(\text{transfer points EF})(\text{baghouse capture$$



$$\begin{aligned}
 & \text{efficiency})(\text{baghouse control efficiency}) + (\text{emission factor} \\
 & \text{for skimmer cyclone})(\text{control efficiency of rotoclone})] \\
 = & [(2)(17 \text{ tons/hr})(0.003 \text{ lb/ton})(0.9)(1-0.99) + (0.91 \text{ lb/hr})(1- \\
 & .90)] \\
 = & 0.0009 + 0.09 \\
 = & 0.09 \text{ lb/hr}
 \end{aligned}$$

If required, hourly particulate emissions shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

$$\begin{aligned}
 \text{PE (ton/yr stack)} &= [(\text{hourly emission limit for combined baghouse/rotoclone} \\
 & \text{stack X 8,760 hours per year})/2,000 \text{ lbs/ton}] \\
 &= (0.09 \text{ lb/hr X 8,760})/2,000 \\
 &= 0.40 \text{ ton per year}
 \end{aligned}$$

$$\begin{aligned}
 \text{PE (fugitive)} &= [(\# \text{ of uncontrolled transfer points})(\text{maximum annual} \\
 & \text{throughput})(\text{transfer points EF}) + (\# \text{ of transfer points} \\
 & \text{controlled by the baghouse})(\text{maximum annual} \\
 & \text{throughput})(\text{transfer points EF})(\text{transfer points} \\
 & \text{EF})(\text{emissions not captured by baghouse})]/2,000 \text{ lbs/ton} \\
 &= [(1)(148,920 \text{ tons per year})(0.003 \text{ lb/ton}) + \\
 & (2)(148,920)(0.003 \text{ lb/ton})(1-0.9)]/2,000 \text{ lbs/ton} \\
 &= (446.8 \text{ lbs} + 89.35 \text{ lbs per year})/2,000 \\
 &= 0.27 \text{ ton per year uncontrolled PE X (1-0.70 control} \\
 & \text{efficiency of building enclosure)} \\
 &= 0.08 \text{ ton per year}
 \end{aligned}$$

b. Emissions Limitations:

No visible PE from the baghouse/rotoclone stack and no visible emissions of fugitive dust.

Applicable Compliance Method:

If required, visible particulate emissions shall be determined according to USEPA Method 22.

g) Miscellaneous Requirements

- (1) None.



5. P908, Fertilizer blending equipment

Operations, Property and/or Equipment Description:

27 ton per hour fertilizer blending equipment including two screeners and 18 material handling transfer points controlled with a baghouse and six material handling transfer points partially enclosed; Chapter 31 modification to increase throughput to 236,520 tons per year; supercedes PTI No. 17-639, EU F004, issued on November 2, 1988

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)     | <p>Particulate emissions (PE) from the combined baghouse stack shall not exceed 0.03 pound per hour and 0.11 ton per year.</p> <p>Fugitive PE shall not exceed 1.01 tons per year.</p> <p>No visible PE from the combined baghouse stack and no visible emissions of fugitive dust.</p> <p>Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.</p> <p>See b)(2)a.-e. below.</p> |



|    | Applicable Rules/Requirements                                                                        | Applicable Emissions Limitations/Control Measures                                                                                                       |
|----|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| b. | OAC rule 3745-17-07(A)<br>OAC rule 3745-17-07(B)<br>OAC rule 3745-17-08(B)<br>OAC rule 3745-17-11(B) | The emissions limitations specified by these rules are less stringent than the emissions limitations established pursuant to OAC rule 3745-31-05(A)(3). |

(2) Additional Terms and Conditions

a. The emissions from this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation, except for the emissions from the uncontrolled material handling transfer points.

b. The material handling operations that are covered by this permit and subject to the above-mentioned requirements are listed below:

- Conditioners
- Main elevators
- 12 duct distributors
- Cluster hopper
- Main scale
- 4-way distributor
- Blend North mixer
- Blend South mixer
- Surge bin elevators (2)
- Surge bins (2)
- Screeners (2)
- Bagging elevators (2)
- Bagging hoppers (3)
- Stacker belts (3)
- Supersack station

c. The permittee shall employ best available control measures for the above-identified material handling operations for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permit application, the permittee will maintain the partial enclosure of the above-mentioned material handling operations and will ensure that the baghouse captures 90% of the emissions from the controlled screeners and transfer points. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

d. For each material handling operation that is not adequately enclosed, the above-identified control measures shall be implemented if the permittee determines, as a result of the daily VE checks conducted pursuant to the monitoring section of this permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures shall continue during the operation of the material handling operations until further observation confirms that use of the control measure(s) is unnecessary.

- e. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.
- c) Operational Restrictions
  - (1) None.
- d) Monitoring and/or Recordkeeping Requirements
  - (1) The permittee shall perform daily checks, when the emissions unit is in operation, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in a monitoring and recordkeeping log. If visible emissions are observed, the permittee shall also note the following in the monitoring and recordkeeping log:
    - a. the color of the emissions;
    - b. the total duration of any visible emissions incident; and
    - c. any corrective actions taken to eliminate the visible emissions.
- e) Reporting Requirements
  - (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
  - (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- f) Testing Requirements
  - (1) Compliance with the emission limitation(s) in b)(1) of this permit shall be determined in accordance with the following method(s):
    - a. Emissions Limitations:  
PE from the baghouse stack shall not exceed 0.03 pound per hour and 0.11 ton per year.  
Fugitive PE shall not exceed 1.01 tons per year.

Applicable Compliance Method:  
Compliance with the emissions limitations shall be demonstrated by the following one-time calculations based on the emission factors in AP-42 Section 11.19.2 (8/04), a baghouse with 90% capture efficiency and 99% control efficiency, 70% control efficiency for the building enclosure from RACM Table 2.1.3-3, a



maximum hourly throughput of 27 tons, and a maximum annual throughput of 236,520 tons:

$$\begin{aligned}
 \text{PE (lb/hr stack)} &= [(\# \text{ of controlled transfer points})(\text{maximum hourly throughput})(\text{transfer points EF}) + (\# \text{ of controlled screeners})(\text{maximum hourly throughput})(\text{scrubber EF})] \\
 &= [(18)(27 \text{ tons per hour})(0.003 \text{ lb/ton}) + (2)(27 \text{ tons per hour})(0.025 \text{ lb/ton})] \\
 &= 2.66 \text{ lb/hr uncontrolled PE} \times 0.90 \times (1-0.99) \\
 &= 0.03 \text{ lb/hr}
 \end{aligned}$$

If required, particulate emissions shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

$$\begin{aligned}
 \text{PE (ton/yr stack)} &= [(\# \text{ of controlled transfer points})(\text{maximum annual throughput})(\text{transfer points EF}) + (\# \text{ of screeners})(\text{maximum annual throughput})(\text{scrubber EF})]/2,000 \text{ lbs/ton} \\
 &= [(18)(236,520 \text{ tons per year})(0.003 \text{ lb/ton}) + (2)(236,520 \text{ tons per year})(0.025 \text{ lb/ton})]/2,000 \text{ lbs/ton} \\
 &= 12.30 \text{ tons per year uncontrolled PE} \times 0.90 \times (1-0.99) \\
 &= 0.11 \text{ ton per year}
 \end{aligned}$$

$$\begin{aligned}
 \text{PE (fugitive)} &= [(\# \text{ of uncontrolled transfer points})(\text{maximum annual throughput})(\text{transfer points EF}) + [(\# \text{ of controlled transfer points})(\text{maximum annual throughput})(\text{transfer points EF})(90\% \text{ capture efficiency}) + (\# \text{ of screeners})(\text{maximum annual throughput})(\text{scrubber EF})(90\% \text{ capture efficiency})]/2,000 \text{ lbs/ton} \\
 &= [(6)(236,520 \text{ tons per year})(0.003 \text{ lb/ton}) + (18)(236,520)(0.003)(1-0.90) + (2)(236,520 \text{ tons per year})(0.025 \text{ lb/ton})(1-0.90)]/2,000 \text{ lbs/ton} \\
 &= 3.36 \text{ tons per year uncontrolled PE} \times (1-0.70) \\
 &= 1.01 \text{ tons per year}
 \end{aligned}$$

- b. Emissions Limitations:  
No visible PE from the baghouse stack and no visible emissions of fugitive dust.

Applicable Compliance Method:  
If required, visible particulate emissions shall be determined according to USEPA Method 22.

- g) Miscellaneous Requirements

- (1) None.