

Facility ID: 1677150026 Issuance type: Final State Permit To Operate

This version of facility specific terms and conditions was converted from a database format to an HTML file during an upgrade of the Ohio EPA, Division of Air Pollution Control's permitting software. Every attempt has been made to convert the terms and conditions to look and substantively conform to the permit issued or being drafted in STARS. However, the format of the terms may vary slightly from the original. In addition, although it is not expected, there is a slight possibility that a term and condition may have been inadvertently "left out" of this reproduction during the conversion process. Therefore, if this version is to be used as a starting point in drafting a new version of a permit, it is imperative that the entire set of terms and conditions be reviewed to ensure they substantively mimic the issued permit. The official version of any permit issued final by Ohio EPA is kept in the Agency's Legal section. The Legal section may be contacted at (614) 644-3037.

In addition to the terms and conditions, hyperlinks have been inserted into the document so you may more readily access the section of the document you wish to review.

Finally, the term language under "Part II" and before "A. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

- [Go to Part II for Emissions Unit F001](#)
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Facility ID: 1677150026 Emissions Unit ID: F001 Issuance type: Final State Permit To Operate

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Part II - Special Terms and Conditions

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.

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
silo vent process - transfer of aggregate and cement unloading to silos, controlled with fabric filter	OAC rule 3745-31-05 (PTI 16-869)	6.36 TPY of particulates (see A.2.a and A.2.b).

2. Additional Terms and Conditions

- (a) The permittee shall employ and maintain a fully enclosed pneumatic conveyor system for the transfer of cement to the storage silo. The system shall be vented to a fabric filter capable of at least seventy percent removal efficiency and shall minimize or eliminate visible emissions. Sand and aggregate shall have sufficient moisture content to minimize or eliminate visible emissions from all storage, transfer, and handling activities. This fugitive dust emissions unit is not located in an Appendix A area as defined in OAC rule 3745-17-08; therefore, OAC rules 3745-17-07 and 3745-17-08 do not apply.

B. Operational Restrictions

1. Annual throughput of sand and aggregate shall not exceed 130,000 tons per year.
2. Monthly throughput of sand and aggregate shall not exceed 17,000 tons in the summer months (June through September), nor 13,000 tons in the non-summer months (October through May).
3. Annual cement throughput shall not exceed 55,000 tons per year.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of total sand and aggregate and cement throughputs, in tons per month.
2. The permittee shall perform daily checks while the equipment is in operation for any visible particulate emissions from the fabric filter control system(s). The presence or absence of any visible emissions from the fabric filter control system(s) shall be noted in an operations log. If any visible emissions are observed from the system(s), corrective actions shall be taken to minimize or eliminate the visible emissions and these actions shall be noted in the operations log.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports to the appropriate Ohio EPA District Office or local air agency which include an identification of each month during which the throughput limitations of section B.2 were exceeded, based on the records required in section C.1, and the actual throughput for each such month. These reports shall be submitted in accordance with the requirements specified in Part I, General Term and Condition 3 of this permit.
2. The permittee shall submit on an annual basis a report which (a) identifies all days during which any visible particulate emissions were observed from the fabric filter control systems and (b) describes the corrective actions taken to eliminate the visible particulate emissions. Additionally, these annual reports shall include the actual throughput of total aggregate (sand and stone) and cement for each such calendar year, based on the records required in section C.1. These reports shall be submitted by January 31 of each year to the appropriate

Ohio EPA District Office or local air agency.

E. Testing Requirements

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

6.36 TPY of particulates

Applicable Compliance Method:

Compliance shall be determined by summing the following products:

i. sand and aggregate transfer to elevated bins:

(AP-42 emissions factor of 0.029 lb/ton particulates)x(annual throughput of sand and stone, in tons)x(moisture control factor of 50%)x(1 ton/2000 lbs)

ii. cement unloading to elevated storage silo (pneumatic):

(AP-42 emission factor of 0.27 lb/ton particulates)x(annual throughput of cement, in tons)x(minimum fabric filter control efficiency of 70%)x(1 ton/2000 lbs)

If the control requirements of section A.2 and the operating restrictions of section B are fulfilled, the resulting maximum annual particulate emissions will be 3.17 tons or less.
Emission Limitation:

70% control efficiency of the fabric filter system

Applicable Compliance Method:

If required, compliance may be demonstrated through emission testing in accordance with the procedures and test method(s) in OAC rule 3745-17-03(B)(10).

F. Miscellaneous Requirements

1. None

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Part II - Special Terms and Conditions

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.

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
weigh hopper, mixer, and truck loading, controlled with fabric filter(s) and sealing drop chute	OAC rule 3745-31-05 (PTI 16-869)	2.56 TPY of particulates (see A.2.a - A.2.c).

2. Additional Terms and Conditions

- (a) The facility shall employ a mobile hood system vented to a fabric filter to control emissions from the loading of sand, aggregate, and cement into the mixer. The system shall be designed, operated and maintained to achieve a minimum of seventy percent removal efficiency, and to minimize or eliminate visible emissions of fugitive dust from mixer loading operations.
The facility shall install, employ and maintain a collection and vent system to return fugitive emissions from the weigh hopper to the storage bin or silo. The system shall be designed, operated and maintained to achieve ninety percent removal efficiency and to minimize or eliminate fugitive dust emissions from the weigh hopper.

The facility shall operate and maintain a hydraulically operated drop chute that enters the transit mixer when concrete is loaded. The chute shall have an adjustable gathering hopper and a metal plate with a seal to eliminate fugitive dust from escaping from the transit mixer during the loading operation. This fugitive dust emissions unit is not located in an Appendix A area as defined in OAC rule 3745-17-08; therefore, OAC rules 3745-17-07 and 3745-17-08 do not apply.

B. Operational Restrictions

1. Annual throughput of sand and aggregate shall not exceed 130,000 tons per year.
2. Monthly throughput of sand and aggregate shall not exceed 17,000 tons in the summer months (June through September), nor 13,000 tons in the non-summer months (October through May).
3. Annual cement throughput shall not exceed 55,000 tons per year.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of total sand and aggregate and cement throughputs, in tons per month.
2. The permittee shall perform daily checks while the equipment is in operation for any visible particulate emissions from the fabric filter control system(s). The presence or absence of any visible emissions from the fabric filter control system(s) shall be noted in an operations log. If any visible emissions are observed from the system(s), corrective actions shall be taken to minimize or eliminate the visible emissions and these actions shall be noted in the operations log.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports to the appropriate Ohio EPA District Office or local air agency which include an identification of each month during which the throughput limitations of section B.2 were exceeded, based on the records required in section C.1, and the actual throughput for each such month. These reports shall be submitted in accordance with the requirements specified in Part I, General Term and Condition 3 of this permit.
2. The permittee shall submit on an annual basis a report which (a) identifies all days during which any visible particulate emissions were observed from the fabric filter control systems and (b) describes the corrective actions taken to eliminate the visible particulate emissions. Additionally, these annual reports shall include the actual throughput of total aggregate (sand and stone) and cement for each such calendar year, based on the records required in section C.1. These reports shall be submitted by January 31 of each year to the appropriate Ohio EPA District Office or local air agency.

E. Testing Requirements

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

Emission Limitation:

2.56 TPY of particulates

Applicable Compliance Method:

Compliance shall be determined by summing the following products:

i. weigh hopper loading:

$(AP-42 \text{ emission factor of } 0.02 \text{ lbs/ton particulates}) \times (\text{annual combined throughput of aggregate and cement, in tons}) \times (\text{fabric filter and enclosure control factor of } 90\%) \times (1 \text{ ton}/2000 \text{ lbs})$

ii. mixer loading:

$(AP-42 \text{ emission factor of } 0.04 \text{ lbs/ton particulates}) \times (\text{annual combined throughput of aggregate and cement, in tons}) \times (\text{fabric filter control factor of } 70\%) \times (1 \text{ ton}/2000 \text{ lbs})$

iii. trans mixer drop chute loading

$(AP-42 \text{ emission factor of } 0.02 \text{ lbs/ton particulates}) \times (\text{annual combined throughput of aggregate and cement, in tons}) \times (99\% \text{ control efficiency, assumed through elimination of visible fugitive dust}) \times (1 \text{ ton}/2000 \text{ lbs})$

If the control requirements of section A.2 and the operating restrictions of section B are fulfilled, the resulting maximum annual particulate emissions will be 1.31 tons or less.

Emission Limitation:

70% control efficiency of the fabric filter system serving the mixer; 90% control efficiency of the fabric filter system serving the weigh hopper

Applicable Compliance Method:

If required, compliance may be demonstrated through emissions testing in accordance with the procedures and test method(s) in OAC rule 3745-17-03(B)(10).

Emissions Limitation:

No fugitive dust from the transit mixer drop chute during loading operations

Applicable Compliance Method:

Compliance shall be demonstrated through visible emissions observations, in accordance with Method 22 of 40 CFR Part 60, Appendix A.

F. Miscellaneous Requirements

1. None

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Part II - Special Terms and Conditions

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.

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
sand and aggregate storage piles	OAC rule 3745-31-05 (PTI 16-869)	10.21 TPY of particulates (see A.2.a - A.2.c).

2. Additional Terms and Conditions

- (a) The facility shall use and store only sand and aggregate that has been washed prior to delivery to this emissions unit. The stored material shall have sufficient moisture content to minimize or eliminate visible emissions from load-in operations, load-out operations, and wind erosion from the pile surfaces. To accomplish this the facility shall add water to storage piles as needed to minimize or eliminate fugitive dust emissions. The emission limitation for particulates specified in this permit was established in the PTI to reflect potential to emit for the emissions unit, assuming "best available technology" is employed to minimize or eliminate fugitive dust emissions. Therefore, implementation of the control measure identified in section A.2.a of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05 for this emissions unit. This fugitive dust emissions unit is not located in an Appendix A area as defined in OAC rule 3745-17-08; therefore, OAC rules 3745-17-07 and 3745-17-08 do not apply.

B. Operational Restrictions

1. Annual throughput of sand and aggregate shall not exceed 130,000 tons per year.
2. Monthly throughput of sand and aggregate shall not exceed 17,000 tons in the summer months (June through September), nor 13,000 tons in the non-summer months (October through May).

C. Monitoring and/or Record Keeping Requirements

1. Except as otherwise provided in this section, the permittee shall perform inspections of each load-in and load-out operation of each storage pile on a daily basis.
2. Except as otherwise provided in this section, the permittee shall perform inspections of wind erosion from pile surfaces associated with each storage pile on a daily basis.
3. The purpose of the inspections is to determine the need for implementing the control measures specified in this permit for load-in and load-out of a storage pile, and wind erosion from the surface of a storage pile. The inspections shall be performed during representative, normal storage pile operating conditions.
4. No inspection shall be necessary for wind erosion from the surface of a storage pile when the pile is covered with snow and/or ice and for any storage pile activity if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.
5. The permittee shall maintain records of the following information:
 - a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
 - 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 and, for wind erosion from pile surfaces, the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measure(s).

The information required in section C.5.d shall be kept separately for (i) the load-in operations, (ii) the load-out operations, and (iii) the pile surfaces (wind erosion), and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

6. The permittee shall maintain monthly records of total sand and aggregate, in tons per month.

D. Reporting Requirements

1. The permittee shall submit deviation reports that identify any of the following occurrences:
 - a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and
 - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.
2. The permittee shall submit deviation (excursion) reports to the appropriate Ohio EPA District Office or local air agency which include an identification of each month during which the throughput limitations of section B.2 were exceeded, based on the records required in section C.6, and the actual throughput for each such month.
3. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

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

10.21 TPY of particulates

Applicable Compliance Method:

As stated in section A.2.b of this permit, compliance shall be assumed based on satisfactory implementation of the best available technology control measures required in section A.2.a of this permit.

If required, compliance shall be determined by summing the following products for each sand and aggregate material employed. The quantity of materials employed in this emissions unit shall be calculated using either worst-case estimates of the quantity of each sand and aggregate material employed, totalling 130,000 tons per year (the permitted operating capacity), or the actual, annual tons of sand and aggregate employed in the emissions unit. The worst-case quantity estimates shall never be less than the actual throughput when calculating emissions:

i. Emissions from load-in (Equation 3⁴)*

$$E = 0.0018(T)[((S/5)(U/5))/((M/2)^2(Y/6))]$$

ii. Load-out (Equation 6⁴)*

$$E = 0.0018(T)[((S/5)(U/5))/((M/2)^2(Y/6))]$$

iii. Wind Erosion (Equation 4)*

$$E = 0.05(T)(S/1.5)(D/90)(d/235)(f/15)$$

iv. Vehicle traffic (Equation 5⁴)*

$$E = 0.10(T)(K)(S/1.5)(d/235)$$

where:

d = dry days per year (see Figure 2.1.2-2);

D = duration of storage, days (see Table 2.1.2-2);

E = emissions of particulates, in pounds;

f = percentage of time wind speed exceeds 12 mph;

K = activity factor, dimensionless (see Table 2.1.2-4);

M = moisture content of stored material, weight percent (see Table 2.1.2-2);

S = silt content of stored material, weight percent (see Table 2.1.2-2);

T = stored material employed, in tons, as detailed above;

U = mean wind speed, mph (see Table 2.1.2-3); and

Y = effective front-loader capacity, cubic yards.

*(Ohio EPA RACM, section 2.1.2, pages 2-26 to 2-52)

F. Miscellaneous Requirements

1. None

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Part II - Special Terms and Conditions

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.

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
paved and unpaved roadways and parking areas	OAC rule 3745-31-05 (PTI 16-869)	6.05 TPY of particulates from all paved and unpaved roadways and parking areas (see A.2.a - A.2.f).

2. Additional Terms and Conditions

- (a) This fugitive dust emissions unit is not located in an Appendix A area as defined in OAC rule 3745-17-08; therefore, OAC rules 3745-17-07 and 3745-17-08 do not apply.
 The emission limitation for particulates specified in this permit was established in the PTI to reflect potential to emit for the emissions unit, assuming "best available technology" is employed to minimize or eliminate fugitive dust emissions. Therefore, implementation of the control measures identified in sections A.2.c - A.2.f of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05 for this emissions unit.
 All unpaved roadways and parking areas shall be watered at least daily to minimize or eliminate the fugitive dust emissions, unless the unpaved roadways and/or parking areas are covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
 A speed limit of twenty miles per hour or less shall be posted and enforced on all unpaved roadways and parking areas in order to minimize fugitive dust emissions.
 All paved roadways and parking areas shall be treated at least twice weekly by flushing with water, sweeping, and/or watering to minimize or eliminate the fugitive dust emissions, unless the paved roadways and/or parking area is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
 The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved streets onto which such material has been deposited by trucking or earth moving equipment or erosion by water or other means.
 Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.

B. Operational Restrictions

1. None

C. Monitoring and/or Record Keeping Requirements

1. The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or local air agency, modify the above-mentioned control measure frequencies if operating experience indicates that less frequent control measures would be sufficient to ensure compliance with the above-mentioned applicable requirements.
2. The permittee shall maintain records of the following information:
 - a. the date and reason any required control measure was not employed, including those control measures that were not employed due to snow and/or ice cover or precipitation; and
 - b. on a calendar quarter basis, the total number of days the control measures were not implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in C.2.b. shall be kept separately for (i) the paved roadways and parking areas and (ii) the unpaved roadways and parking areas, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

D. Reporting Requirements

1. The permittee shall submit deviation reports that identify each day during which a control measure was not

employed at the required frequency, excluding a control measure which was not performed due to an exemption for snow and/or ice cover or precipitation.

E. Testing Requirements

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

Emission Limitation:

6.05 TPY of particulates from all roadways and parking areas

Applicable Compliance Method:

As stated in section A.2.b of this permit, compliance shall be assumed based on satisfactory implementation of the best available technology control measures required in section A.2 of this permit.

If required, actual emissions may be estimated using AP-42, 5th edition, chapters 13.2.1, equation (1) and 13.2.2, equation (1).

F. Miscellaneous Requirements

1. None