



Environmental Protection Agency

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

4/29/2011

JOHN SLUTZ  
JMW Transfer Station  
512 - 45TH STREET SW  
CANTON, OH 44706

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE  
Facility ID: 1576051900  
Permit Number: P0107251  
Permit Type: Renewal  
County: Stark

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 Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

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

If you have any questions, please contact Canton City Health Department at (330)489-3385 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. This permit can be accessed electronically on the DAPCWeb page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc), by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

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

Cc: Canton





**FINAL**

**Division of Air Pollution Control  
Permit-to-Install and Operate  
for  
JMW Transfer Station**

Facility ID:	1576051900
Permit Number:	P0107251
Permit Type:	Renewal
Issued:	4/29/2011
Effective:	4/29/2011
Expiration:	4/29/2021





Division of Air Pollution Control
Permit-to-Install and Operate
for
JMW Transfer Station

Table of Contents

Authorization ..... 1
A. Standard Terms and Conditions ..... 3
1. What does this permit-to-install and operate ("PTIO") allow me to do?..... 4
2. Who is responsible for complying with this permit? ..... 4
3. What records must I keep under this permit? ..... 4
4. What are my permit fees and when do I pay them?..... 4
5. When does my PTIO expire, and when do I need to submit my renewal application? ..... 4
6. What happens to this permit if my project is delayed or I do not install or modify my source? ..... 5
7. What reports must I submit under this permit? ..... 5
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? ..... 5
9. What are my obligations when I perform scheduled maintenance on air pollution control equipment? ... 5
10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report? ..... 6
11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located? ..... 6
12. What happens if one or more emissions units operated under this permit is/are shut down permanently? ..... 6
13. Can I transfer this permit to a new owner or operator?..... 7
14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"? ..... 7
15. What happens if a portion of this permit is determined to be invalid? ..... 7
B. Facility-Wide Terms and Conditions..... 8
C. Emissions Unit Terms and Conditions ..... 10
1. F001, Paved Roadways and Yard Areas..... 11
2. F003, Enclosed Solid Waste Transfer Station ..... 18



## Authorization

Facility ID: 1576051900

Application Number(s): A0040780

Permit Number: P0107251

Permit Description: Renewal permit for JMW Transfer Station with modifications to allow 15% increase in particulate emissions from paved roadways and parking areas due to increased vehicle traffic expected with a new bulking operation (see separate PTIO No. P0107253). Also, a change in method of operation to allow baled MSW with no emissions increase for the existing enclosed rail-to-truck solid waste transfer operation.

Permit Type: Renewal

Permit Fee: \$0.00

Issue Date: 4/29/2011

Effective Date: 4/29/2011

Expiration Date: 4/29/2021

Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

JMW Transfer Station  
1800 ALLEN AVE SE  
Canton, OH 44707

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

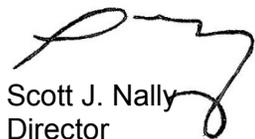
Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Canton City Health Department  
420 Market Avenue  
Canton, OH 44702-1544  
(330)489-3385

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency



Scott J. Nally  
Director



## Authorization (continued)

Permit Number: P0107251

Permit Description: Renewal permit for JMW Transfer Station with modifications to allow 15% increase in particulate emissions from paved roadways and parking areas due to increased vehicle traffic expected with a new bulking operation (see separate PTIO No. P0107253). Also, a change in method of operation to allow baled MSW with no emissions increase for the existing enclosed rail-to-truck solid waste transfer operation.

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

**Emissions Unit ID:**

Company Equipment ID:  
Superseded Permit Number:  
General Permit Category and Type:

**F001**

Paved Roadways and Yard Areas  
15-01603  
Not Applicable

**Emissions Unit ID:**

Company Equipment ID:  
Superseded Permit Number:  
General Permit Category and Type:

**F003**

Enclosed Solid Waste Transfer Station  
15-01594  
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 Canton City Health Department 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.

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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).

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

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

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

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

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

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

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

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. F001, Paved Roadways and Yard Areas

Operations, Property and/or Equipment Description:

Fugitive particulate emissions from paved roadways and concrete yard and parking areas.

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) [Best Available Technology (BAT)]	11.0 tons/year of fugitive particulate matter of 10 microns or less (PM10).  56.6 tons/year of fugitive particulate emissions (PE). (This supersedes the limit in PTI 15-01603, issued 9/27/2007.)  No visible particulate emissions except for 1 minute during any 60-minute period.  Enforcement of speed limits and best available control measures that are sufficient to minimize or eliminate visible particulate emissions of fugitive dust (see b)(2)a. through b)(2)f.).

b.	OAC rule 3745-17-07(B)(4) (This emissions unit is located in an area identified in Appendix A of OAC rule 3745-17-08)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-08(B) (This emissions unit is located in an area identified in Appendix A of OAC rule 3745-17-08)	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 permittee shall post speed limit signs on the paved entrance road and paved yard and parking areas. The speed limit shall not exceed 20 miles per hour on the paved entrance road and 10 miles per hour in the paved yard and parking areas. The permittee shall strictly enforce the speed limits.
- b. The permittee shall employ best available control measures on all paved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's application, the permittee has committed to treat the paved roadways and parking areas by application of chemical stabilization/dust suppressants and/or watering at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance. Dry sweeping without a vacuum device shall not be done at this facility.
- c. The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for paved roadways and parking areas that 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.
- d. The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved surfaces onto which such material has been deposited by trucking or earth moving equipment, or erosion by water, or other means.
- e. 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.

- f. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the Best Available Technology requirements of OAC rule 3745-31-05(A)(3).
- 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 each of the roadway segments and parking areas in accordance with the following frequencies:
- | <u>paved roadways and parking areas</u> | <u>minimum inspection frequency</u> |
|---|-------------------------------------|
| all roads and parking areas             | daily                               |
- (2) The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area that 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. 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.
- (3) The permittee shall maintain records of the following information:
- the date and reason why any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
  - the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
  - the dates the control measures were implemented; and
  - on a calendar quarter basis, the total number of days the control measures were 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 in "d" shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.
- e) Reporting Requirements
- (1) 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. The PER shall also include identification of the following:

- 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.

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

- a. Emission Limitations:

11.0 tons/year of fugitive PM10

56.6 tons/year of fugitive PE

Applicable Compliance Method:

Compliance with fugitive PM10 and PE limitations shall be determined by using the emission factor equation for Paved Roads in AP-42, Section 13.2.1, as revised November 2006. [AP-42, Fifth Edition, *Compilation of Air Pollutant Emission Factors*, Volume 1: Stationary Point and Area Sources, U.S. EPA.] Although a more recent version of AP-42, Section 13.2.1 became available in January 2011 during the time these permit Terms and Conditions were being developed, the permit writer has made a decision to stay with the November 2006 version. One reason for the decision was to remain consistent with the calculations used by the permittee in the permit application, but the larger reason was that the emission calculations results were higher with the November 2006 version, making it the more conservative approach.

In the future, it is recommended that the decision described in the preceding paragraph be revisited, because generally speaking, the most current emission factor should be used. At present, the decision to take the more conservative approach has not triggered any additional burdens or regulatory requirements for the permittee. See Additional Comments following the Compliance Demonstration below.

Compliance Demonstration:

The general emissions equation from AP-42 is as follows:

$$E = A \times EF \times (1 - ER/100)$$

where: E = emissions rate

A = activity rate

EF = emission factor

ER = overall emissions reduction efficiency due to controls (%)

The emission factor (EF) for particulate emissions for Paved Roads is calculated as follows from Equation (2), AP-42, Section 13.2.1, as revised November 2006, and information provided by the permittee in the permit application.

$$EF = [k (sL/2)^{0.65} \times (W/3)^{1.5} - C] \times [1 - P/4N]$$

where: k = particle size multiplier from AP-42, Table 13.2.1-1

= 0.016 lb/VMT for PM10

= 0.082 lb/VMT for PM30 ≈ PE

(VMT = vehicle miles travelled)

sL = 7.4 g/m<sup>2</sup> silt loading from AP-42, Table 13.2.1-3

W = 27.5 tons avg. vehicle weight as provided by the permittee

C = 0.00047 lb/VMT emission factor for exhaust, brake wear & tire wear for 1980's vehicle fleet, from AP-42, Table 13.2.1-2. The value is the same for both PM10 and PM30. Note that this term is subtracted out of the equation as a corrective measure, because the equation is meant to estimate particulate emissions from resuspended road surface material only. See more below under Additional Comments.

P = 145 wet days per year from AP-42, Figure 13.2.1-2

N = 365 days in the averaging period

[Units as shown above have been built into the equation.]

Applying the values shown above to the equation:

$$EF_{PM10} = [0.016 (7.4/2)^{0.65} \times (27.5/3)^{1.5} - 0.00047] \times [1 - 145/4(365)]$$

$$= 0.94 \text{ lb/VMT}$$

$$EF_{PM30 \approx PE} = [0.082 (7.4/2)^{0.65} \times (27.5/3)^{1.5} - 0.00047] \times [1 - 145/4(365)]$$

$$= 4.80 \text{ lb/VMT}$$

Returning to the general emissions equation from AP-42, the following additional information was provided by the permittee in the permit application:

A = 94,402 maximum vehicle miles travelled (VMT) per year

ER = 75% estimated overall emissions reduction efficiency due to controls that include watering/sweeping, good housekeeping and speed enforcement.

Applying all of the above values to the general emissions equation:

For PM10:

$$E = 94,402 \text{ VMT/yr} \times 0.94 \text{ lb/VMT} \times (1 - 75/100) \div 2000 \text{ lb/ton} = 11.0 \text{ tons/yr}$$

For PE:

$$E = 94,402 \text{ VMT/yr} \times 4.80 \text{ lb/VMT} \times (1 - 75/100) \div 2000 \text{ lb/ton} = 56.6 \text{ tons/yr}$$

Additional Comments Regarding AP-42, Section 13.2.1:

In the permit application received November 16, 2010, the permittee used the emission factor equation from the November 2006 version of AP-42, Section 13.2.1, which at that time was the most recent version. In January 2011, during the time these permit Terms and Conditions were being developed, a major revision to this section of AP-42 was released based on newer studies. The emission factor equation was revised, and the values for the particle size multiplier, k, were revised significantly downward.

The other change in the January 2011 equation was the removal of the "C" term for vehicle exhaust, brake wear and tire wear. In the November 2006 equation, "C" was subtracted out in order to *not* include emissions for vehicle exhaust, brake wear and tire wear. There is no "C" term in the January 2011 version, because in developing the new equation, emissions for vehicle exhaust, brake wear and tire wear were subtracted from the data *before* the regression analysis was performed, and this was not done when developing the November 2006 equation.

Note that resuspension of loose road surface material is by far the predominant source of particulate emissions for the paved surfaces as this facility. So for the purposes of this permit, discounting emissions from vehicle exhaust, brake wear and tire wear is warranted because they represent an insignificant fraction of the total.

b. Emissions Limitation:

There shall be no visible particulate emissions from the paved roadways and/or parking areas except for a period of time not to exceed one minute during any 60-minute observation period.

Applicable Compliance Method:

If required, compliance with the visible particulate emissions limitation identified in this permit shall be determined in accordance with U.S. EPA Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60, with the following modifications as specified in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03:

- (a) If the observer's view is obscured and observations must be terminated prior to completing the necessary or desired observation period, the observer shall clearly note this fact on the observation form. When the observer's view of the source is no longer obscured, the observations shall recommence to complete the observation period.
- (b) The observer shall identify on the observation form all interruptions due to rest breaks.

- (c) For the purpose of determining compliance with the applicable visible emission limitation, the observations, excluding break periods and periods of obscured vision, shall be considered continuous.
  - (d) For any roadway or parking area, the observer shall determine the presence and duration of visible particulate emissions at the same point of the potential emissions and at a height approximately four feet above the surface of the roadway or parking area.
- g) Miscellaneous Requirements
- (1) None.



2. F003, Enclosed Solid Waste Transfer Station

Operations, Property and/or Equipment Description:

Fugitive particulate emissions from the material handling operations of a rail-to-truck solid waste transfer station contained within a permanent total enclosure, with water spray bars during loading/unloading and water spray nozzles located within the building exhaust duct system.

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

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

a. b)(2)j.ii – b)(2)j.iv., d)(3), f)(2)

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

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01 [Best Available Technology (BAT)]	0.03 tons/year of fugitive particulate matter of 10 microns or less (PM10).  0.07 tons/year of fugitive particulate emissions (PE). (This supersedes the limit in PTI 15-01594, issued 1/24/2006.)  There shall be no visible emissions of fugitive dust escaping from the enclosure.  Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see b)(2)c. through b)(2)g.).
b.	OAC rule 3745-31-05(A)(3), as effective 12/01/06 [Less than 10 ton/yr BAT exemption]	See b)(2)j.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-07(B)(1) (This emissions unit is located in an area identified in Appendix A of OAC rule 3745-17-08)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3) as effective 11/30/01.  See b)(2)j. and b)(2)j.ii.
d.	OAC rule 3745-17-08(B) (This emissions unit is located in an area identified in Appendix A of OAC rule 3745-17-08)	The control measures specified by this rule are less stringent than the control measures established pursuant to OAC rule 3745-31-05(A)(3) as effective 11/30/01.  See b)(2)j. and b)(2)j.v.
e.	OAC rule 3745-15-07 [air pollution nuisance prohibition]	The requirements specified by this rule are less stringent than the control measures established pursuant to OAC rule 3745-31-05(A)(3) as effective 11/30/01.  See b)(2)j. and b)(2)j.v.

(2) Additional Terms and Conditions

- a. The material handling operations that are covered by this permit and subject to the above mentioned requirements for this emissions unit are listed below:
  - i. unloading of materials from railcars with a backhoe and then loading the materials into trucks with a backhoe or other type of loader;
  - ii. dumping of materials from drop-off boxes onto the material handling area and then loading the material into trucks with a backhoe or other type of loader; and
  - iii. the gathering of salvageable materials from the materials handled.
  
- b. The following materials and only these materials are permitted to be handled in this emissions unit. For the purposes of this emissions unit and this permit, the word "materials" shall refer to any of the following materials:
  - i. Solid Waste (SW) including auto fluff, but excluding non-baled Municipal Solid Waste (MSW);
  - ii. Baled Municipal Solid Waste (MSW);

- iii. Construction and Demolition Debris (C&DD);
  - iv. C&DD commingled with materials described in b)(2)b.i. above;
  - v. Category I Asbestos-Containing Material (ACM) that has not become friable and has not been or will not be subjected to sanding, grinding, cutting, or abrading (as defined in 40 CFR Part 61, Subpart M, Section 141 amended November 20, 1990, or any subsequent revisions or in any U.S. EPA interpretive ruling concerning the NESHAP for asbestos); and
  - vi. Soils including (1) waste soils that are classified as solid waste (SW); i.e., waste soils that are not hazardous wastes, not commingled with radioactive materials, or not contaminated with PCBs; and (2) soils that are not classified as solid waste.
- c. All of the permitted material handling operations for this emissions unit, identified in term b)(2)a. above, shall be contained within a permanent total enclosure. One end of the enclosure may be open to allow the railcars and trucks to enter and exit. The enclosure shall be designed, built and operated so that the escape of fugitive dust from the enclosure is minimized and to ensure that the visible emissions limitation in term b)(1)a. or b)(1)b. above is met, whichever is applicable.
- d. The permittee shall install, operate and maintain water spray bars as follows to minimize the fugitive dust generated from any of the material handling operations listed in term b)(2)a. above and to meet the visible emissions limitation in term b)(1)a. or b)(1)b. above is met, whichever is applicable.
- i. Any loads which appear to contain dusty materials shall be watered prior to unloading.
  - ii. During the handling of any load of dusty material in which the material becomes airborne, the material shall be watered as necessary to minimize visible emissions of fugitive dust.
- e. The permittee shall ensure that the unloading of materials from railcars and the loading of materials into trucks shall be performed in a manner that will minimize the drop height of the materials.
- f. The permittee shall ensure that any Asbestos-Containing Material (ACM) shall not become friable while at the transfer station facility. If ACM arrives at the facility as friable ACM or if any ACM becomes friable while at the facility, the permittee shall adequately wet or encapsulate the ACM as necessary to prevent visible emissions and to ensure that the ACM is properly disposed of at a permitted asbestos landfill.
- g. The permittee shall install and maintain water curtains on all exhaust fans in this emissions unit and shall operate these water curtains whenever the exhaust fans are operating and material handling operations are in progress. The water curtain system shall be designed, built and operated so that the escape of

fugitive dust from the exhaust fans is minimized and to ensure that the visible emissions limitation in term b)(1)a or b)(1)b. above is met, whichever is applicable. The facility shall utilize chemical additives in the water ~~if~~as required to ensure that the water curtains will operate properly to suppress particulate matter and other potential air emissions in cold weather when the air temperature outside the emissions unit is lower than freezing (32° F).

- h. All materials shall be inspected and all shipping papers reviewed prior to unloading to assure that no undesirable materials are included in the shipment. No non-baled MSW, Regulated Asbestos-Containing Materials (RACM) (as defined in 40 CFR Part 61, Subpart M, Section 141 amended November 20, 1990, or any subsequent revisions or in any U.S. EPA interpretive ruling concerning the NESHAP for asbestos), hazardous wastes, infectious wastes, materials contaminated with radioactive materials, or materials contaminated with PCBs shall be handled in this emissions unit.
- i. With the emissions limits and control measures mentioned in term b)(1) a. above, the permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform with ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for sources having potential to emit, taking into account controls, less than ten tons per year of emissions of an NAAQS pollutant or precursor. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirements to satisfy BAT still exist as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then the emission limits and control measures listed above in b)(1)a. no longer apply. See next section, b)(2)j.
- j. This term only applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan. In that case only, the following Terms and Conditions will apply instead of those listed under b)(1)a.:
  - i. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM10 emissions from this air contaminant source (i.e., this emissions unit) since the calculated annual emission rate for PM10 is less than 10 tons per year taking into account the maximum operational limitation of 1,200,000 tons of material transferred per year (see term c)(1) below).
  - ii. There shall be no visible emissions of fugitive dust escaping from the enclosure except for 1 minute during any 60-minute period (voluntary restriction proposed by the permittee that is more stringent than OAC rule 3745-17-07(B)(1), because it is consistent with the performance capability of the control measures required in terms b)(2)j.iii. and b)(2)j.iv. below,

and for the purpose of avoiding potential nuisance violations under OAC rule 3745-15-07).

- iii. Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust shall be utilized as described in terms b)(2)c. through b)(2)f. above, not under BAT requirements, but rather pursuant to the Director's Final Findings and Orders issued September 28, 2007 (ref Ohio EPA Case No. 06-AI-004).
- iv. The control measure described in term b)(2)g. above shall be utilized, not under a BAT requirement, but rather pursuant to the Joint Stipulation and Settlement Agreement between JMW Trucking, Inc. and the City of Canton, signed by Joseph Martuccio (representing the city of Canton) on August 29, 2007 and Michael A. Cyphert (representing JMW Trucking, Inc.) on September 7, 2007 (ref ERAC Case No. 765862 – 765866).
- v. The requirements described in terms b)(2)j.iii. and b)(2)j.iv. above also include compliance with the requirements of OAC rule 3745-17-08(B); i.e. reasonably available control measures for fugitive dust in Appendix A areas.

c) **Operational Restrictions**

- (1) The permittee shall be limited to transferring no more than 1,200,000 tons of material per calendar year in this emissions unit. This amount of material is in addition to the amounts permitted to be received and transferred in other emissions units at the overall facility (Facility ID 1576051900).

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

- (1) When the emissions unit is in operation, the permittee shall perform inspections on a daily basis of the unloading and loading operations to determine if significant visible emissions are being emitted inside the enclosure. The purpose of the inspections is to determine the need for implementing the control measures in terms b)(2)d and/or b)(2)f above. The inspections shall be performed during representative, normal operating conditions. The permittee shall maintain daily records of the following information from the daily inspections described in this paragraph:
  - a. the date and reason why 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 control measures;
  - c. the control measures that were implemented and on which date(s); and
  - d. On a calendar quarter basis, the total number of days that control measures were implemented.

The information in "d" shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

- (2) The permittee shall also perform daily checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the exhaust fans, at the doors, and at any other large openings of the enclosure to determine if there is any fugitive dust escaping from the enclosure. The presence or absence of any visible emissions escaping from the enclosure shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
    - a. the color of the emissions;
    - b. the total duration of the visible emissions incident; and
    - c. any corrective actions taken to eliminate the visible emissions.
  - (3) The permittee may, upon receipt of written approval from the Canton City Health Department, Air Pollution Control Division modify the daily check frequency in term d)(2) above if operating experience indicates that less frequent checks for visible emissions escaping from the enclosure would be sufficient to ensure compliance with the above-mentioned applicable requirements.
    - a. The inspection frequency for the unloading and loading operations described in term d)(1) above shall not be modified.
  - (4) The permittee shall maintain daily, monthly and annual records of the total amount of materials transferred (in tons) in this emissions unit, itemized by the following four categories: 1. Solid Waste (SW) excluding baled Municipal Solid Waste (MSW); 2. Baled MSW; 3. Construction and Demolition Debris (C&DD); and 4. Soils.
- e) Reporting Requirements
- (1) 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. The permittee shall identify the following information in the annual permit evaluation report:
    - a. each day during which an inspection or daily check (per term d)(1) or d)(2), respectively) was not performed by the required frequency;
    - b. each instance when a control measure that was to be implemented as a result of an inspection required in term d)(1) was not implemented;
    - c. all days during which any visible emissions of fugitive dust were observed escaping from the enclosure as a result of the daily checks required in term d)(2) above;
    - d. any corrective actions taken to eliminate the visible emissions escaping from the enclosure; and

- e. the total amount of materials (in tons) transferred in the previous calendar year in this emissions unit, itemized by the following four categories: 1. Solid Waste (SW) excluding baled Municipal Solid Waste (MSW); 2. baled MSW; 3. Construction and Demolition Debris (C&DD); and 4. Soils. The report shall include monthly and annual totals for each category, plus monthly and annual totals for all categories combined.

f) Testing Requirements

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

a. Emissions Limitations:

If term b)(1)a. above is applicable (BAT limitation) the following limitations apply:

0.03 tons/year of fugitive PM10

0.07 tons/year of fugitive PE

If term b)(1)b. above (< 10 tpy BAT exemption) is applicable rather than b)(1)a., then the above emissions limitations do not apply. Skip to Emissions Limitation f)(1)b.

Applicable Compliance Method:

Compliance with fugitive PM10 and PE limitations shall be determined by using the emission factor equations in AP-42, Section 13.2.4 – Aggregate Handling and Storage Piles, as revised November 2006. [AP-42, Fifth Edition, *Compilation of Air Pollutant Emission Factors*, Volume 1: Stationary Point and Area Sources, U.S. EPA.] See demonstration below.

In the future, should this section of AP-42 be revised or other relevant information become available, then the most current equations shall be used to estimate emissions factors for the material handling operations at this emissions unit.

Compliance Demonstration:

The general emissions equation from AP-42 is as follows:

$$E = A \times EF \times (1 - ER/100)$$

where: E = emissions rate

A = activity rate

EF = emission factor

ER = overall emissions reduction efficiency due to controls (%)

The emission factor (EF) for uncontrolled emissions is calculated from Equation (1), AP-42, Section 13.2.4, as revised November 2006, and information provided by the permittee in the permit application:

$$EF = k \times (0.0032) \times [ (U/5)^{1.3} \div (M/2)^{1.4} ] \text{ per transfer point*}$$

\* Each unit of material is handled twice (railcar unloading and truck loading), so there are two transfer points. Therefore, the above equation must be multiplied by 2 as follows:

$$EF_{TOTAL} = 2 \times k \times (0.0032) \times [(U/5)^{1.3} \div (M/2)^{1.4}]$$

where: EF = emission factor in lb/ton (i.e., lb<sub>emissions</sub>/ton<sub>material handled</sub>)

k = particle size multiplier from AP-42, page 13.2.4-4

= 0.35 for PM10

= 0.74 for PM30 ≈ PE

U = 9.9 mph mean wind speed (source: EAC form 3113 instructions, pg 2, data for nearest city: Akron)

M = 4% material moisture content as provided by the permittee as a conservative estimate based on mixed C&DD, non-combustible. (*Integrated Solid Waste Management, Engineering Principles and Management Issues*, McGraw-Hill, Inc., 1993, Table 4-1)

[Units as shown above have been built into the EF equation.]

Applying the values shown above to the equation (including the factor of 2):

EF = 0.00206 lb/ton for PM10

EF = 0.00436 lb/ton for PM30 ≈ PE

Returning to the general emissions equation from AP-42, the following additional information is needed:

A = 1,200,000 maximum tons of material handled per year (permit limit)

ER<sub>1</sub> = 75% estimated emissions reduction efficiency due to control measures that include minimizing drop heights and wetting down the waste with water sprays.

ER<sub>2</sub> = an additional 90% estimated emissions reduction efficiency due to control measures that include the fully enclosed building and water sprays built into the duct system for the building's two exhaust fans.

Because ER<sub>1</sub> and ER<sub>2</sub> are not additive, but rather are applied sequentially, the general emissions equation must be modified as follows:

$$E = A \times EF \times (1 - ER_1/100) \times (1 - ER_2/100)$$

Applying all of the above values to the general emissions equation:

For PM10:

$$E = 1,200,000 \text{ ton/yr} \times 0.00206 \text{ lb/ton} \times (1 - 75/100) \times (1 - 90/100) \div 2000 \text{ lb/ton} \\ = 0.03 \text{ tons/yr}$$

For PE:

$$E = 1,200,000 \text{ ton/yr} \times 0.00436 \text{ lb/ton} \times (1 - 75/100) \times (1 - 90/100) \div 2000 \text{ lb/ton} \\ = 0.065 \approx 0.07 \text{ tons/yr}$$

b. Emissions Limitation:

If term b)(1)a. above is applicable (BAT limitation): There shall be no visible emissions of fugitive dust escaping from the enclosure.

If term b)(1)b. above is applicable (< 10 tpy BAT exemption), the following voluntary restriction that is more stringent than OAC rule 3745-17-07(B)(1) applies: There shall be no visible emissions of fugitive dust escaping from the enclosure except for 1 minute during any 60-minute period.

Applicable Compliance Method:

If required, compliance with the visible emissions limitation for the fugitive dust identified in this permit shall be determined in accordance with U.S. EPA Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60, with the following modifications as specified in OAC rule 3745-17-03(B)(4):

- i. If the observer's view is obscured and observations must be terminated prior to completing the necessary or desired observation period, the observer shall clearly note this fact on the observation form. When the observer's view of the source is no longer obscured, the observations shall recommence to complete the observation period;
- ii. The observer shall identify on the observation form all interruptions due to rest breaks;
- iii. For the purpose of determining compliance with the applicable visible emission limitation, the observations, excluding break periods and periods of obscured vision, shall be considered continuous; and
- iv. For any roadway or parking area, the observer shall determine the presence and duration of visible particulate matter at the same point of the potential emissions and at a height approximately four feet above the surface of the roadway or parking area.

- (2) In the event of the receipt of odor complaints concerning this emissions unit are received by the Canton City Health Department, Air Pollution Control Division, such that the emissions unit needs to be evaluated as to whether it is causing, permitting, or maintaining a public nuisance, the facility may be required to perform a measurement and characterization of the air contaminants being emitted by this emissions unit in order that the facility may be able to properly evaluate any measures that the facility would undertake to control odors.

g) Miscellaneous Requirements

- (1) None.