State of Ohio Environmental Protection Agency

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11/3/2008

J ALLEN PORTER
LWR ENTERPRISES INC
PO BOX 245
WATERFORD, OH 45786

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 0684000206
Permit Number: 06-08376
Permit Type: Initial Installation
County: Washington

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.

Ohio EPA maintains a document entitled "Frequently Asked Questions about the PTIO". The document can be downloaded from the DAPC Web page, www.epa.state.oh.us/dapc, from the "Permits" link. This document contains additional information related to your permit, such as what activities are covered under the PTIO, who has enforcement authority over the permit and Ohio EPA's authorization to inspect your facility and records. Please contact the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469 if you need assistance.

The issuance of this PTIO is a final action of the Director and may be appealed to the Environmental Review Appeals Commission ("ERAC") under Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and describe the action complained of and the grounds for the appeal. The appeal must be filed with the ERAC within thirty (30) days after notice of the Director's action. A filing fee of $70.00 must be submitted to the ERAC with the appeal, although the ERAC, has discretion to reduce the amount of the filing fee if you can demonstrate (by affidavit) that payment of the full amount of the fee would cause extreme hardship. If you file an appeal of this action, you must notify Ohio EPA of the filing of the appeal (by providing a copy to the Director) within three (3) days of filing your appeal with the ERAC. Ohio EPA requests that a copy of the appeal also be provided to the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the ERAC at the following address:

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

If you have any questions regarding this permit, please contact the Ohio EPA DAPC, Southeast District Office. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page www.epa.state.oh.us/dapc.

Sincerely,

Michael W. Ahern

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

Cc: Ohio EPA-SEDO

State of Ohio Environmental Protection Agency
Division of Air Pollution Control

FINAL

Air Pollution Permit-to-Install and Operate
for
LWR ENTERPRISES INC

Facility ID: 0684000206
Permit Number: 06-08376
Permit Type: Initial Installation
Issued: 11/3/2008
Effective: 11/3/2008
Expiration: 11/3/2018

State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Air Pollution Permit-to-Install and Operate
for
LWR ENTERPRISES INC

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1. F005, Stockpiles associated with crushing, screening and briquetting operations. This emissions unit includes truck unloading of raw materials; and, load-in, load-out and wind erosion from alloy, briquette, and stone stockpiles 11
2. P902, 20 TPH TRIO Crusher Screen Machine and Screen (including load-in to hopper) and two conveyors equipped with a collection system and controlled by a baghouse 20

Authorization

Facility ID: 0684000206
Application Number(s): A0007248
Permit Number: 06-08376
Permit Description: Initial permit for installation of storage piles and crushing and screening operation
Permit Type: Initial Installation
Permit Fee: $3,500.00
Issue Date: 11/3/2008
Effective Date: 11/3/2008
Expiration Date: 11/3/2018
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15
This document constitutes issuance to:

LWR ENTERPRISES INC
ROUTE 32
WATERFORD, OH 45786

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: 06-08376
Permit Description: Initial permit for installation of storage piles and crushing and screening operation

Permits for the following emissions unit(s) or groups of emissions units are in this document as indicated below:

Emissions Unit ID:	**F005**
Company Equipment ID:	Storage Piles
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P902**
Company Equipment ID:	Crusher & Screen
Superseded Permit Number:	
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. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

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

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

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

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

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

7. What reports must I submit under this permit?

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

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

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions 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 a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emission unit once the certification has been submitted to Ohio EPA by the authorized official.

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

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

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

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

change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

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

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

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

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

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. F005, Stockpiles associated with crushing, screening and briquetting operations. This emissions unit includes truck unloading of raw materials; and, load-in, load-out and wind erosion from alloy, briquette, and stone stockpiles.

Operations, Property and/or Equipment Description:

Storage piles

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 operations(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. 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)	Total fugitive particulate emissions (PE) shall not exceed 3.35 TPY. No visible PE except for 1 minute during any 60 -minute period. Best available control measures that are sufficient to minimize or eliminate visible PE of fugitive dust b)(2)(a) through b)(2)(f). The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(B)(6), 3745-17-08(B), and 3745-17-08(B)(6).
b.	OAC rule 3745-17-07(B)(6)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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).
d.	OAC rule 3745-17-08(B)(6)	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 storage piles that are covered by this permit and subject to the requirements of OAC rule 3745-31-05 are listed below:

ALL

b. The permittee shall employ best available control measures on all load-in and load-out operations associated with the storage piles for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's application, the permittee has committed to control fugitive emissions by unloading trucks into a three-sided enclosure with a front curtain and controlling the unloading rate; maintaining a building enclosure to store alloys and briquettes; and minimizing drop heights for briquette, alloy and stone piles to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

c. The above-mentioned control measure(s) shall be employed for each load-in and load-out operation of each storage pile if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during any such operation until further observation confirms that use of the measure(s) is unnecessary.

d. The permittee shall employ best available control measures for wind erosion from the surfaces of all storage piles for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the application, the permittee has committed to unloading trucks into a three-sided enclosure with a front curtain; maintaining a building enclosure to store alloys and briquettes; and minimizing drop heights for briquette, alloy, and stone piles to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

e. The above-mentioned control measure(s) shall be employed for wind erosion from each pile if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) are necessary to ensure compliance with the above-mentioned applicable requirements. Implementation of the control measure(s) shall not be necessary for a storage pile 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.

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 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 load-in operation at each storage pile in accordance with the following frequencies:

Storage pile identification	Minimum daily load-in inspection frequency
All	Daily

(2) Except as otherwise provided in this section, the permittee shall perform inspections of each load-out operation at each storage pile in accordance with the following frequencies:

Storage pile identification	Minimum daily load-out inspection frequency
All	Daily

(3) Except as otherwise provided in this section, the permittee shall perform inspections of the wind erosion from pile surfaces associated with each storage pile in accordance with the following frequencies:

Storage pile identification	Minimum daily load-in inspection frequency
All	Daily

(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 not be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.

(5) The purpose of the inspections is to determine if control measures specified in this permit for load-in, load-out of storage piles, and wind erosion from storage pile surfaces are sufficient to minimize or eliminate visible particulate emissions of fugitive dust. The inspections shall be performed during representative, normal storage pile operating conditions.

(6) 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 additional 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 the 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 (6)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.

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.

f) Testing Requirements

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

a. <u>Emission Limitation</u>:

Total fugitive particulate emissions (PE) shall not exceed 3.35 TPY.

<u>Applicable Compliance Method:</u>

Compliance shall be determined based on the emission factor calculation for drop operations associated with storage piles in AP-42 section 13.2.4. (11/06).

Initial compliance has been determined using inputs representing current conditions as follows:

For Truck Unloading to and Load-Out of 3-Sided Enclosure

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

where:

EF = emission factor expressed in pounds per ton (lbs/ton);
k = particle size multiplier for TSP (dimensionless) = 0.74;

U = mean wind speed expressed in miles per hour (MPH) = 8.7; and
M= material moisture content (%) = 1.0.

EF= 0.0128 lb PE/ ton

[(1 load-in) (0.0128 lb PE/ton)(30,660 tons/year) + (1 load-out) (0.0128 lb PE/ton) (30,660 tons/year)]/ 2,000 lb/ton = 0.392 ton/year uncontrolled PE

Assume a control efficiency of 70 % for unloading into and loading out of a 3-sided enclosure with front curtain and controlling unloading rate (engineering estimate of the permittee) as submitted in PTIO application.

(0.392 ton/year PE)(0.30) = 0.12 TPY controlled PE; and,

the emission factor calculation for wind erosion from storage piles found in USEPA's Control of Open Fugitive Dust Sources (9/88). Initial compliance has been determined using inputs representing current conditions as follows:

EF = (1.7) (s/1.5) ((365-p)/365)) (f/15)

where:

E= emission factor in pounds (lbs)/day/acre;
s = silt content of road surface material (%) = 90%;
p= number of rain days per year >0.01 in. = 130;
f = percentage of time that wind speed exceeds 12 mph (%) = 30; and
A= total surface area of storage piles (acres) = 0.1.

Therefore, EF= 204 lbs/day/acre

[(204 lbs PE/day/acre)(365 days)(0.1 acres)]/2,000 lbs/ton = 3.72 TPY uncontrolled PE

Assumes a control efficiency of 70% for a 3-sided enclosure with front curtain (engineering estimate of the permittee) as submitted in PTIO application,

(3.72 TPY uncontrolled PE) (0.30) = 1.12 TPY controlled PE

Total Emissions:
Load-in and Load-out: 0.12 TPY of PE
Wind erosion: 1.12 TPY of PE
Total: 1.24 TPY of PE

For Alloys Storage Piles
EF = k (0.0032) $[(U/5)^{1.3}/ (M/2)^{1.4}]$

where:

EF = emission factor expressed in pounds per ton (lbs/ton);
k = particle size multiplier for TSP (dimensionless) = 0.74;
U = mean wind speed expressed in miles per hour (MPH) = 8.7; and

M= material moisture content (%) = 1.0.

EF= 0.0128 lb PE/ ton

[(1 load-in) (0.0128 lb PE/ton)(30,660 tons/year) + (1 load-out) (0.0128 lb PE/ton) (30,660 tons/year)]/ 2,000 lb/ton = 0.392 tons/year uncontrolled PE

Assume a control efficiency of 70 % for maintaining a building enclosure and minimizing drop heights (engineering estimate of the permittee) as submitted in the PTIO application.

(0.392 ton/year PE)(0.30) = 0.12 TPY controlled PE; and,

the emission factor calculation for wind erosion from storage piles found in USEPA's Control of Open Fugitive Dust Sources (9/88). Initial compliance has been determined using inputs representing current conditions as follows:

EF = (1.7) (s/1.5) ((365-p)/365)) (f/15)

where:

E= emission factor in pounds (lbs)/day/acre;
s = silt content of road surface material (%) = 90%;
p= number of rain days per year >0.01 in. = 130;
f = percentage of time that wind speed exceeds 12 mph (%) = 30; and
A= total surface area of storage piles (acres) = 0.16.

Therefore, EF= 204 lbs/day/acre

[(204 lbs PE/day/acre)(365 days)(0.16 acres)]/2,000 lbs/ton = 5.96 TPY uncontrolled PE

Assumes a control efficiency of 70% for maintaining a building enclosure and minimizing drop heights (engineering estimate of the permittee) as submitted in PTIO.

(5.96 TPY uncontrolled PE) (0.30) = 1.79 TPY controlled PE

Total Emissions:

Load-in and Load-out:	0.12 TPY of PE
Wind erosion:	1.79 TPY of PE
Total:	**1.91 TPY of PE**

For Briquette Storage Piles

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

where:

EF = emission factor expressed in pounds per ton (lbs/ton);
k = particle size multiplier for TSP (dimensionless) = 0.74;

U = mean wind speed expressed in miles per hour (MPH) = 8.7; and
M= material moisture content (%) = 1.0.

EF= 0.0128 lb PE/ ton

[(1 load-in) (0.0128 lb PE/ton)(30,660 tons/year) + (1 load-out) (0.0128 lb PE/ton) (30,660 tons/year)]/ 2,000 lbs/ton = 0.392 ton/year uncontrolled PE

Assume a control efficiency of 70 % for maintaining a building enclosure and minimizing drop heights (engineering estimate of the permittee) as submitted in the PTIO application.

(0.392 ton/year PE)(0.30) = 0.12 TPY controlled PE; and,

the emission factor calculation for wind erosion from storage piles found in USEPA's Control of Open Fugitive Dust Sources (9/88). Initial compliance has been determined using inputs representing current conditions as follows:

EF = (1.7) (s/1.5) ((365-p)/365)) (f/15)

where:

E= emission factor in pounds (lbs)/day/acre;
s = silt content of road surface material (%) = 1.0%;
p= number of rain days per year >0.01 in. = 130;
f = percentage of time that wind speed exceeds 12 mph (%) = 30; and
A= total surface area of storage piles (acres) = 0.21.

Therefore, EF= 2.267 lbs/day/acre

[(2.267 lbs PE/day/acre)(365 days)(0.21 acres)]/2,000 lbs/ton = 0.0869 TPY uncontrolled PE

Assumes a control efficiency of 70% for maintaining a building enclosure and minimizing drop heights (engineering estimate of the permittee) as submitted in PTIO application.

(0.0869 TPY uncontrolled PE) (0.30) = 0.03TPY controlled PE

Total Emissions:

Load-in and Load-out:	0.12 TPY of PE
Wind erosion:	0.03 TPY of PE
Total:	**0.15 TPY of PE**

For Stone Storage Piles

EF = k (0.0032) $[(U/5)^{1.3}/ (M/2)^{1.4}]$
where:
EF = emission factor expressed in pounds per ton (lbs/ton);
k = particle size multiplier for TSP (dimensionless) = 0.74;
U = mean wind speed expressed in miles per hour (MPH) = 8.7; and
M= material moisture content (%) = 0.7.

EF= 0.02115 lb PE/ ton

[(1 load-in) (0.02115 lb PE/ton)(1,500 tons/year) + (1 load-out) (0.02115 lb PE/ton) (1,500 tons/year)]/ 2,000 lbs/ton = 0.032 tons/year uncontrolled PE

Assume a control efficiency of 25 % for minimizing drop heights (engineering estimate of the permittee) as submitted in PTIO application.

(0.032 ton/year PE)(0.75) = 0.024 TPY controlled PE; and,

the emission factor calculation for wind erosion from storage piles found in USEPA's Control of Open Fugitive Dust Sources (9/88). Initial compliance has been determined using inputs representing current conditions as follows:

EF = (1.7) (s/1.5) ((365-p)/365)) (f/15)

where:

E= emission factor in pounds (lbs)/day/acre;
s = silt content of road surface material (%) = 1.6%;
p= number of rain days per year >0.01 in. = 130;
f = percentage of time that wind speed exceeds 12 mph (%) = 30; and
A= total surface area of storage piles (acres) = 0.05.

Therefore, EF= 3.627 lbs/day/acre

[(3.627 lbs PE/day/acre)(365 days)(0.05 acres)]/2,000 lbs/ton = 0.033 TPY uncontrolled PE

Assumes a control efficiency of 25% for minimizing drop heights (engineering estimate of the permittee) as submitted in PTIO application.

(0.033 TPY uncontrolled PE) (0.75) = 0.025 TPY controlled PE

Total Emissions:
Load-in and Load-out: 0.024 TPY of PE
Wind erosion: 0.025 TPY of PE
Total: 0.05 TPY of PE

TOTAL = Truck Unloading + Alloys + Briquettes + Stone =
1.24 TPY + 1.91 TPY + 0.15 TPY + 0.05 TPY = 3.34 TPY PE

b. Emissions Limitation:

No visible PE except for 1 minute during any 60-minute period.

Applicable Compliance Method:

If required, visible emissions of fugitive dust shall be determined according to USEPA Method 22, with the modifications found in OAC rule 3745-17-03(B)(4).

g) Miscellaneous Requirements

(1) None.

2. P902, 20 TPH TRIO Crusher Screen Machine and Screen (including load-in to hopper) and two conveyors equipped with a collection system and controlled by a baghouse.

Operations, Property and/or Equipment Description:

20 TPH Crusher and Screening Plant

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 operations(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. 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)	Total particulate emissions from the stack shall not exceed 0.04 TPY. Total fugitive particulate emissions shall not exceed 0.29 TPY. Fugitive particulate emissions from the building enclosure shall not exceed 5% opacity, as a 6-minute average. 0.030 grain per dry standard cubic foot of exhaust gases from the control device or no visible emissions, whichever is less stringent. See b)(2)(a). The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-08(B)(3), 3745-17-07(A)(1), and 3745-17-07(B), and 3745-17-11(B)(1).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20 percent opacity as a 6-minute average, except as provided by rule.
c.	OAC rule 3745-17-07(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).
d.	OAC rule 3745-17-08(B)(3)	The requirements established pursuant to this rule are equivalent to the requirements of OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-17-11(B)(1)	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 particulate collection equipment and baghouse shall be maintained such that the collection efficiency is sufficient to minimize or eliminate visible emissions of fugitive dust at the points of capture to the extent possible with good engineering design and practices. The permittee has committed to maintaining partial enclosures and venting emissions to a baghouse to ensure compliance.

c) Operational Restrictions

a. The emissions from this emissions unit shall be vented to a baghouse at all times the emissions unit is in operation.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, 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 an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

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.

f) Testing Requirements

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

a. Emissions Limitation:

Total particulate emissions from the stack shall not exceed 0.04 TPY.

Applicable Compliance Method:
Compliance shall be determined based on the following calculations and emission factors from AP-42 section 13.2.4.3-1 (11/06) and AP-42 section 11.19.2(8/04).

Initial compliance has been determined using inputs representing current conditions as follows:

Load-in to Hopper:

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

where:

EF = emission factor expressed in pounds per ton (lbs/ton);
k = particle size multiplier for TSP (dimensionless) = 0.74;
U = mean wind speed expressed in miles per hour (MPH) = 8.7; and
M= material moisture content (%) = 1.0.

EF = 0.0128 lb PE/ ton

[(1 load-in to hopper)(175,200 tons/year)(0.0128 lb PE/ton)]/2,000 lbs/ton = 1.12 TPY uncontrolled PE

Crushing, Screening and Transfer Points:

[(1 crusher) (0.0054 lb PE/ton)(175,200 tons/year) + (1 screener)(0.025 lb PE/ton)(175,200 tons/year) + (4 transfer points)(0.003 lb PE/ton)(175,200 tons/year)]/ 2,000 lbs/ton = 3.71 TPY of PE

Total uncontrolled PE = 4.83TPY

Assume a capture efficiency of 80 % for pick-up and exhaust system and 99% baghouse control efficiency (engineering estimates of the permittee) as submitted in the PTIO application.

4.83 TPY uncontrolled PE (0.80)(1-0.99) = 0.04 TPY PE

b. Emissions Limitation:

Total fugitive particulate emissions shall not exceed 0.29 TPY.

Applicable Compliance Method:
Compliance shall be determined based on the following calculations and emission factors from AP-42 section 13.2.4 (11/06) and AP-42 section 11.19.2(8/04).

Initial compliance has been determined using inputs representing current conditions as follows:

Load-in to Hopper:

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

where:

EF = emission factor expressed in pounds per ton (lbs/ton);
k = particle size multiplier for TSP (dimensionless) = 0.74;
U = mean wind speed expressed in miles per hour (MPH) = 8.7; and
M= material moisture content (%) = 1.0.

EF = 0.0128 lb PE/ ton

[(1 load-in to hopper)(175,200 tons/year)(0.0128 lb PE/ton)]/2,000 lbs/ton = 1.12 TPY uncontrolled PE

Crushing, Screening and Transfer Points:

[(1 crusher) (0.0054 lb PE/ton)(175,200 tons/year) + (1 screener)(0.025 lb PE/ton)(175,200 tons/year) + (4 transfer points)(0.003 lb PE/ton)(175,200 tons/year)]/ 2,000 lbs/ton = 3.71 TPY of PE

Total uncontrolled PE = 4.83TPY

Assume 80% capture for the pick-up and exhaust system and 70 % control efficiency for the building enclosure (engineering estimates of the permittee) as submitted in the PTIO application.

4.83 TPY uncontrolled PE (0.20)(1-.70) = 0.29 TPY

c. Emissions Limitation:

0.030 grain per dry standard cubic foot of exhaust gases from the control device or no visible emissions, whichever is less stringent

Applicable Compliance Method:
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" and/or USEPA Method 22, and the procedures specified in OAC rule 3745-17-03(B)(7).

d. Emissions Limitation:

Fugitive particulate emissions from the building enclosure shall not exceed 5% opacity , as a 6-minute average.

Applicable Compliance Method:

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

e. Emissions Limitations:

Visible particulate emissions from any stack shall not exceed 20 percent opacity as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

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

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

a. The emission testing shall be conducted within 3 months after issuance of the permit.

b. The emission testing shall be conducted to demonstrate compliance with the no visible emissions limitation in b)(1)(a). A Method 22 of 40 CFR Part 60, Appendix A shall be conducted on the stack to demonstrate compliance.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

c. The test(s) shall be conducted while this emissions unit and the briquetting operation (P903) are operating at or near its maximum capacity, unless

otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

d. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

e. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

f. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

g) Miscellaneous Requirements

(1) None.