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

9/2/2014

Certified Mail

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

Mike Seabolt
Quaker City Castings
310 EUCLID ST
SALEM, OH 44460

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 0215090009
Permit Number: P0117198
Permit Type: Initial Installation
County: Columbiana

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

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

How to appeal this permit

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

Environmental Review Appeals Commission
77 South High Street, 17th Floor
Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

How to give us feedback on your permitting experience

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

How to get an electronic copy of your permit

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

If you have any questions, please contact Ohio EPA DAPC, Northeast District Office at (330)425-9171 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,

Michael W. Ahern

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

Cc: Ohio EPA-NEDO

FINAL

Division of Air Pollution Control
Permit-to-Install and Operate
for
Quaker City Castings

Facility ID:	0215090009
Permit Number:	P0117198
Permit Type:	Initial Installation
Issued:	9/2/2014
Effective:	9/2/2014
Expiration:	9/28/2017

Division of Air Pollution Control
Permit-to-Install and Operate
for
Quaker City Castings

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Authorization

Facility ID:	0215090009
Application Number(s):	A0049122
Permit Number:	P0117198
Permit Description:	Initial FEPTIO for a thermal sand reclamation unit with associated equipment.
Permit Type:	Initial Installation
Permit Fee:	$500.00
Issue Date:	9/2/2014
Effective Date:	9/2/2014
Expiration Date:	9/28/2017

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

This document constitutes issuance to:

Quaker City Castings
310 EUCLID ST
SALEM, OH 44460

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

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

Ohio EPA DAPC, Northeast District Office
2110 East Aurora Road
Twinsburg, OH 44087
(330)425-9171

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Craig W. Butler
Director

Authorization (continued)

Permit Number: P0117198
Permit Description: Initial FEPTIO for a thermal sand reclamation unit with associated equipment.

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

Emissions Unit ID:	**P901**
Company Equipment ID:	Thermal Reclaim
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 of this permit will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

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

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

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

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

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the [DO/LAA] in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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) Allowable Facility-Wide Emission Limitation:

         a. The total emissions of particulate matter with a diameter of 10 microns or less (PM_{10}) from all of the air contaminant sources at this facility (except those defined as trivial by Ohio EPA DAPC Engineering Guide 62) shall not exceed 95.6 tons per rolling, 12-month period.

      (2) Operational Restrictions:

         a. The maximum throughput of metal melt shall not exceed 14,620 tons per rolling, 12-month period.

         b. The maximum throughput of virgin sand processing shall not exceed 74,460 tons per rolling, 12-month period.

      (3) Monitoring and/or Recordkeeping Requirements:

         a. The permittee shall collect and record the following information each month from all of the air contaminant sources at this facility (except those defined as trivial by Ohio EPA DAPC Engineering Guide 62):

            i. total metal melt, in tons;

            ii. rolling, 12-month metal melt;

            iii. total virgin sand processed, in tons; and

            iv. rolling, 12-month virgin sand processed.

            *The rolling, 12-month value is calculated by adding the current month's value to the sum of the values from the previous eleven months.

         b. The air contaminant sources at the facility have been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summation of the emissions, upon issuance of this permit.

(4) Reporting Requirements:

a. The permittee shall submit quarterly deviation (excursion) reports that include the following information:

i. an identification of any month when any of the rolling, 12-month throughput limitations as specified in b.2.a and b.2.b are exceeded; and

ii. the actual throughput for the limitation that was exceeded.

If there are no deviations or exceedances, the permittee shall report that no exceedances occurred during the calendar quarter.

(5) Testing Requirements:

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

i. Emission Limitation:

The total emissions of PM_{10} from all of the air contaminant sources at this facility (except those defined as trivial by Ohio EPA DAPC Engineering Guide 62) shall not exceed 95.6 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the facility-wide PM_{10} emission limitation of 95.6 tons per rolling, 12-month period is assumed if the throughput limitations in B.1.b)(2) are not exceeded.

c) The Ohio EPA has determined that Quaker City Castings (QCC) is subject to the requirements of the area source MACT/GACT rule for iron and steel foundries (40 CFR Part 63, Subpart ZZZZZ). Ohio EPA does not have the delegated authority to implement this rule. Although Ohio EPA has determined that this area source MACT (also known as the GACT) applies, at this time Ohio EPA does not have the authority to enforce this standard. Instead, U.S. EPA has the authority to enforce this standard. Please be advised that all requirements associated with this rule are in effect and are enforceable by U.S. EPA.

Note: Ohio EPA finds that QCC qualifies as a "small foundry" according to the definition in section 63.10880(f) of the area source MACT. This section reads "If the metal melt production for calendar year 2008 is 20,000 tons or less, your area source is a small foundry."

d) As of the date of this permit issuance, QCC does not melt more than 600 tons of aluminum per year, and is therefore not subject to the area source MACT for aluminum, copper, and other nonferrous foundries (40 CFR Part 63, Subpart ZZZZZZ). Ohio EPA also does not have the delegated authority to implement this area source MACT. Instead, U.S. EPA has the authority to enforce this standard. Please be advised that all requirements associated with this rule are in effect and are enforceable by U.S. EPA.

e) For more information on the area source rules, please refer to the following U.S. EPA website:

http://www.epa.gov/ttn/atw/area/arearules.html

C. Emissions Unit Terms and Conditions

1. P901, Thermal Reclaim

Operations, Property and/or Equipment Description:

Thermal Sand Reclamation Unit with lump breaker and associated equipment (screening, natural gas fired thermal reclaim unit (220,000 Btu/hr), cooling system (30 GPM), pneumatic lines, and sand storage silos with bin vents) controlled by two baghouses.

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

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

a. None.

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

a. b)(1)h, c)(1), d)(1), d)(2) and e)(1)

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	Nitrogen oxide (NO_x) emissions shall not exceed 0.2 ton/month averaged over a rolling, 12-month period. Volatile organic compound (VOC) emissions shall not exceed 0.61 ton/month averaged over a rolling, 12-month period. See b)(2)b and b)(2)d.
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)c.
c.	ORC 3704.03(T) and OAC rule 3745-31-05(A)(3)	Carbon monoxide (CO) emissions shall not exceed 1.3042 tons/month averaged over a rolling, 12-month period.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.
e.	OAC rule 3745-17-07(B)	Visible PE of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
f.	OAC rule 3745-17-08(B)	Reasonably available control measures that are sufficient to minimize or eliminate visible PE of fugitive dust See b)(2)a.
g.	OAC rule 3745-17-11	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D)(1)(b).
h.	OAC rule 3745-31-05(D)(1)(b)	PM_{10} emissions from each baghouse stack serving this emissions unit shall not exceed 0.008 gr/dscf, 1.69 lbs/hr and 7.42 TPY. Fugitive PM_{10} emissions shall not exceed 1.8 lbs/hr and 1.58 TPY. See B.1.b)(1) and B.1.b)(2) under Facility-Wide Terms and Conditions.

(2) Additional Terms and Conditions

a. The permittee shall minimize or eliminate visible PE of fugitive dust by employing reasonably available control measures for this emissions unit for the purpose of ensuring compliance with the above mentioned applicable requirements. These measures shall include, but not be limited to, the following:

i. the installation and use of hoods, fans and other equipment to adequately enclose, contain, capture, vent, and control the fugitive dust;

ii. the collection efficiency is sufficient to minimize or eliminate visible PE of fugitive dust at the point(s) of capture to the extent possible with good engineering design; and

iii. the control equipment for this emissions unit shall achieve an outlet emission rate of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases or there are no visible particulate emissions from the exhaust stack(s), whichever is less stringent.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by the 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 the OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006, version of 3745-31-05, then these emission limits/control measures no longer apply.

c. This paragraph applies once U.S. EPA approves the December 1. 2006 version of OAC rule 3745-31-05, as part of the State Implementation Plan, (SIP).

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NO_x and VOC from this emissions unit since the "uncontrolled" potential to emit is less than ten tons per year.

d. The "Best Available Technology" (BAT) requirements for this emissions unit have been determined to be compliance with the terms and conditions of this permit. It should be noted that this emissions unit emits sulfur dioxide (SO_2). The potential to emit of SO_2 results in negligible emission quantities and therefore have not been addressed through limitations established under OAC rule 3745-31-05(A)(3).

c) Operational Restrictions

(1) The emissions from this emissions unit shall be vented to the Thermal Sand Reclaim baghouse and the Sand System baghouse at all times the emissions unit is in operation.

(2) The permittee shall burn only natural gas in the thermal reclaim unit.

d) Monitoring and/or Recordkeeping Requirements

(1) The acceptable range for the pressure drop across the baghouses, that must be maintained in order to demonstrate compliance with the Facility-Wide emission limitation in section B.1.b)(1)a. of this permit, shall be the following:

a. Thermal Sand Reclaim Baghouse: 1 to 5 inches of water.

b. Sand System Baghouse: 2 to 5 inches of water.

(2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouses when the controlled emissions unit is in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouses on a daily basis. The monitoring

equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

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

k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

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

requirements of this permit and may be incorporated into this permit by means of an administrative modification.

(3) 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 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 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 emissions incident; and

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

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions 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.

If no visible emissions are noted for each daily visible emission check during one month, then the frequency may become weekly. If visible emissions are noted during a weekly inspection, the permittee shall revert to daily visible emission checks until no visible emissions are documented for an entire month, at which time the permittee may again perform checks on a weekly basis.

(4) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from this emissions unit and/or the area immediately above the capture system. 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 color of the emissions;

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

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

If no visible emissions are noted for each daily visible emission check during one month, then the frequency may become weekly. If visible emissions are noted during a weekly

inspection, the permittee shall revert to daily visible emission checks until no visible emissions are documented for an entire month, at which time the permittee may again perform checks on a weekly basis.

(5) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify all deviations (excursions) of the control device operating parameter limitations that restrict the PE emissions and have been detected by the monitoring and record keeping requirements in this permit, as follows:

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouses was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the baghouses;

c. the probable cause of each deviation (excursion); and

d. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (Ohio EPA Northeast District Office).

(2) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in thermal reclaim unit. Each report shall be submitted within 30 days after the deviation occurs.

(3) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12 months for each air contaminant source identified in this permit.

(4) The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in d)(3) and d)(4):

a. all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and

b. all days during which any visible particulate emissions were observed from the stack serving this emission unit; and

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

The above information shall be provided as an attachment to the PER. If there are no day(s) and/or corrective action(s) to identify as required above, the permittee shall indicate within the "Additional Information and Corrections" section of the PER that no visible emissions were observed and no corrective actions were taken.

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

f) Testing Requirements

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

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

PM_{10} emissions from each baghouse stack serving this emissions unit shall not exceed 0.008 gr/dscf.

<u>Applicable Compliance Method</u>:

If required, compliance shall be demonstrated by an emission test performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and 40 CFR Part 51, Appendix M, Method 201.

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

PM_{10} emissions from each baghouse stack serving this emissions unit shall not exceed 1.69 lbs/hr and 7.42 TPY.

Applicable Compliance Method:

The hourly emission limitation was established by multiplying the baghouse manufacturers specified maximum outlet grain loading of 0.008 gr/dscf by the baghouse design flow rate as shown below:

Emissions from the Thermal Reclaim & Chiller Unit:

0.008 gr/dscf x 10,500 dscf/min x 60 min/hr ÷ 7000 gr/lb = 0.72 lb PM_{10}/hr

Emissions from the Lump Breaker, Elevator, Silo:

0.008 gr/dscf x 12,250 dscf/min x 60 min/hr ÷ 7000 gr/lb = 0.84 lb PM_{10}/hr

Emissions from the Reclaim Silo Bin Vent:

0.008 gr/dscf x 1,950 dscf/min x 60 min/hr ÷ 7000 gr/lb = 0.13 lb PM_{10}/hr

If required, compliance with the hourly emission limitation shall be demonstrated by an emission test performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and 40 CFR Part 51, Appendix M, Method 201.

The tpy emission limitation was developed by multiplying the short-term allowable PM_{10} emission limitation (1.69 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

c. Emission Limitation:

Fugitive PM_{10} emissions shall not exceed 1.8 lbs/hr and 1.58 TPY.

Applicable Compliance Method:

The hourly emission limitation was established by multiplying the hourly throughput rate of 5 TPH by the emission factor, and by the capture efficiency as shown below:

Fugitive Emissions from the Lump Breaker, Elevator, Silo:

5 TPH x 3.6 lb PM/ton x (1-0.9) = 1.8 lbs PM_{10}/hr

The annual PM_{10} emission limitation was developed by using the equation above with an hourly throughput rate of 1 TPH, and then multiplying the calculated PM_{10} emissions hourly rate (0.36 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton.

d. Emission Limitation:

NO_x emissions shall not exceed 0.2 ton/month averaged over a rolling, 12-month period.

Applicable Compliance Method:

The short term mass emission rate for NO_x emissions was based on the stack test performed on a similar emissions unit located at Liberty Castings Co on October 5, 2010 with a 10% "safety factor" added (0.53 lbs/ton). The tons per month averaged over a rolling, 12-month period limitation was calculated by multiplying the hourly limitation by 8760, dividing by 2000, adding 0.0945 ton/year from natural gas combustion ((.098 AP-42 Table 1.4-1 EF lb/mmbtu x 220,000 btu/hr x 8760 hr/yr) / 2000 lbs/ton) and then dividing by 12 months per year.

If required, the permittee may demonstrate compliance through an emission test performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 7E.

e. Emission Limitation:

CO emissions shall not exceed 1.3042 tons/month averaged over a rolling, 12-month period.

Applicable Compliance Method:

The short term mass emission rate for CO emissions was based on a stack test performed on a similar emissions unit located at Liberty Castings Company on October 5, 2010 with a 10% "safety factor" added (3.56 lbs/ton). The tons per month averaged over a 12 month rolling period limitation was calculated by multiplying the hourly limitation by 8760, dividing by 2000, adding 0.0794 ton/year from natural gas combustion ((.0824 AP-42 Table 1.4-1 EF lb/mmbtu x 220,000 btu/hr x 8760 hr/yr) / 2000 lbs/ton) and then dividing by 12 months per year.

If required, the permittee may demonstrate compliance through an emission test performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 10.

f. Emission Limitation:

VOC emissions shall not exceed 0.61 ton/month averaged over a rolling, 12-month period.

Applicable Compliance Method:

The short term mass emission rate for VOC emissions was based on a stack test performed on a similar emissions unit located at Liberty Castings Company on May 21, 2009 with a 10% "safety factor" added (1.10 lbs/ton). The tons per month averaged over a 12 month rolling period limitation was calculated by

multiplying the hourly limitation by 8760, dividing by 2000, adding 0.0052 ton/year from natural gas combustion ((.00539 AP-42 Table 1.4-2 EF lb/mmbtu x 220,000 btu/hr x 8760 hr/yr) / 2000 lbs/ton) and then dividing by 12 months per year.

If required, the permittee may demonstrate compliance through an emission test performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 25 and 25A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, NEDO.

g. Emission Limitation:

Visible PE of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible PE observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

h. Emission Limitation:

Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible PE observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, 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 180 days after the startup of the emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for PM_{10}, NO_x, CO and OC.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

40 CFR Part 60, Appendix A, Methods 1 through 5;

40 CFR Part 51, Appendix M, Method 201;

40 CFR Part 60, Appendix A, Method 7E;

40 CFR Part 60, Appendix A, Method 10; and

40 CFR Part 60, Appendix A, Methods 25 and 25A.

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

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA Northeast District Office.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. 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 Northeast District Office's refusal to accept the results of the emission test(s).

f. Personnel from the Ohio EPA Northeast District Office 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.

g. 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 Ohio EPA Northeast District Office 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 Ohio EPA Northeast District Office.

g) Miscellaneous Requirements

(1) None.