



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

2/26/2016

Mr. Timothy Harvey
ALLIANCE TUBULAR PRODUCTS LLC - Alliance Plant
Copperleaf Centre
6051 Wallace Road Ext., Suite 200
Wexford, PA 15090

Certified Mail

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

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 1576010407
Permit Number: P0101130
Permit Type: Renewal
County: Stark

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**
- **What should you do if you notice a spill or environmental emergency?**

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.

What should you do if you notice a spill or environmental emergency?

Any spill or environmental emergency which may endanger human health or the environment should be reported to the Emergency Response 24-HOUR EMERGENCY SPILL HOTLINE toll-free at (800) 282-9378. Report non-emergency complaints to the appropriate district office or local air agency.

If you have any questions regarding your permit, please contact Canton City Health Department at (330)489-3385 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Michael E. Hopkins, P.E.
Assistant Chief, Permitting Section, DAPC

Cc: Canton



FINAL

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

ALLIANCE TUBULAR PRODUCTS LLC - Alliance Plant

Facility ID:	1576010407
Permit Number:	P0101130
Permit Type:	Renewal
Issued:	2/26/2016
Effective:	2/26/2016
Expiration:	2/9/2026



Division of Air Pollution Control
Permit-to-Install and Operate
for
ALLIANCE TUBULAR PRODUCTS LLC - Alliance Plant

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Authorization

Facility ID: 1576010407
Application Number(s): A0011692, A0032906
Permit Number: P0101130
Permit Description: PTIO Renewal permit for Pangborn shotblast with baghouse and natural gas-fired steam generator at existing steel tubing production plant.
Permit Type: Renewal
Permit Fee: \$0.00
Issue Date: 2/26/2016
Effective Date: 2/26/2016
Expiration Date: 2/9/2026
Permit Evaluation Report (PER) Annual Date: Oct 1 - Sept 30, Due Nov 15

This document constitutes issuance to:

ALLIANCE TUBULAR PRODUCTS LLC - Alliance Plant
640 KEYSTONE STREET
Alliance, OH 44601

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:

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

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency


Craig W. Butler
Director



Authorization (continued)

Permit Number: P0101130

Permit Description: PTIO Renewal permit for Pangborn shotblast with baghouse and natural gas-fired steam generator at existing steel tubing production plant.

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

Emissions Unit ID:	B005
Company Equipment ID:	Clayton Generator
Superseded Permit Number:	15-01552
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P005
Company Equipment ID:	#5 Mill Shot Blast
Superseded Permit Number:	P0075089
General Permit Category and Type:	Not Applicable



Final Permit-to-Install and Operate
ALLIANCE TUBULAR PRODUCTS LLC - Alliance Plant
Permit Number: P0101130
Facility ID: 1576010407
Effective Date: 2/26/2016

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.



Final Permit-to-Install and Operate
ALLIANCE TUBULAR PRODUCTS LLC - Alliance Plant
Permit Number: P0101130
Facility ID: 1576010407
Effective Date: 2/26/2016

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.
2. The Ohio EPA has determined that this facility may be subject to the requirements of an area source MACT/GACT rule (National Emission Standards for Hazardous Air Pollutants (NESHAP) [for industrial, commercial, and institutional boilers area sources](#), 40 CFR Part 63, Subpart JJJJJJ) that the Ohio EPA does not have the delegated authority to implement. Although Ohio EPA has determined that an area source MACT (also known as the GACT) may apply, 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 these rules are in effect and are enforceable by U.S. EPA. 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>.
 - a) In accordance with 40 CFR 63.11195(e), this emission unit is exempted from the emission limitations in Table 1 and the work practice standards, emission reduction measures, and management practices specified in Table 2 of this subpart by meeting the requirements for a gas-fired boiler as defined in 40 CFR 63.11237.
3. The Ohio EPA has determined that this facility may be subject to the requirements of an area source MACT/GACT rule (National Emission Standards for Hazardous Air Pollutants (NESHAP) for Area Sources of Metal Fabrication and Finishing Source Nine Categories, 40 CFR Part 63, Subpart XXXXXX) that the Ohio EPA does not have the delegated authority to implement. Although Ohio EPA has determined that an area source MACT (also known as the GACT) may apply, 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 these rules are in effect and are enforceable by U.S. EPA. 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>.



Final Permit-to-Install and Operate
ALLIANCE TUBULAR PRODUCTS LLC - Alliance Plant
Permit Number: P0101130
Facility ID: 1576010407
Effective Date: 2/26/2016

C. Emissions Unit Terms and Conditions

1. P005, #5 Mill Shot Blast

Operations, Property and/or Equipment Description:

#5 Mill Pangborn Shot Blast controlled by baghouse.

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

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

a. None.

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

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)(a) [Best Available Technology (BAT) requirements originally established in permit 15-345 issued on 03/18/1987 and administratively modified to update emission limitation in this permit]	Particulate emissions less than 10 microns in diameter (PE/PM ₁₀) shall not exceed 0.75 tons (PE/PM ₁₀)/yr from the stack serving this emission unit. See b)(2)a., b)(2)b and c)(1).
b.	OAC rule 3745-17-11(B)(1)	Particulate emissions (PE) shall not exceed 3.42 pounds per hour from the stack serving this emission unit. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

(2) Additional Terms and Conditions

- a. All particulate emissions from the baghouse are assumed to be less than 10 microns in diameter and are designated as PE/PM₁₀.
- b. The Best Available Technology (BAT) requirements pursuant to OAC rule 374-31-05(A) shall be demonstrated by the use of a baghouse.

c) Operational Restrictions

- (1) The emissions from this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform weekly 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 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.

- (2) The permittee shall maintain the baghouse in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s). In the event the baghouse is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual, the control device shall be expeditiously repaired or otherwise returned to these documented operating conditions. The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the baghouse. These documents shall be maintained at the facility.

- (3) The permittee shall conduct periodic inspections of the baghouse to determine whether it is operating in accordance with the manufacturer's recommendations, instructions, or operating manuals. These inspections shall be performed at a frequency that shall be based upon the recommendation of the manufacturer and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency.

The permittee shall document each inspection (periodic and annual) of the baghouse and shall maintain the following information:

- a. the date of the inspection;
 - b. a description of each/any problem identified and the date it was corrected;
 - c. a description of any maintenance and repairs performed; and
 - d. the name of person who performed the inspection.
- (4) The permittee shall maintain records that document any time periods when the baghouse was not in service when the emissions unit(s) was/were in operation, as well as, a record of all operations during which the baghouse was not operated according to the manufacturer's recommendations.

e) Reporting Requirements

- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency 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.

In addition to standard requirements for the PER, the permittee shall also identify in the annual PER the following information concerning the operations of the baghouse during the 12-month reporting period for this emissions unit:

- a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
- b. 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
- c. any corrective actions taken to minimize or eliminate the visible particulate emissions.

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. Emission Limitation:
0.75 tons (PE/PM₁₀)/yr



Applicable Compliance Method:

The yearly emission limit was established by the resulting calculation:

$$\text{potential emissions (T/yr)} \times (1 - \text{Control Efficiency (\%)})$$

Where,

potential emissions = 75 tons/yr from potential to emit (PTE) analysis supplied by facility in 2013, which was based on the maximum throughput of shot and rust/scale which have the potential to become airborne. This value also matches the maximum throughput supplied in 1995 by the facility.

Control Efficiency = 99% from original PTI application from facility and also from the potential to emit (PTE) analysis supplied by facility in 2013.

$$75 \times (1 - .99) = 0.75 \text{ tons/yr}$$

Note: The above calculation assumes 100% capture efficiency of the particulate to the baghouse since it is a completely enclosed design. Therefore, no fugitive emissions are expected.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC Rule 3745-17-03(B)(10).

Note: The original PTI 15-345 had only an annual emission limitation (no hourly) of 0.6 tons PE/yr. This was based on a maximum throughput of 60 tons/yr assumed at the time in 1987. When the facility first applied for a FESOP permit in 1995, they corrected their maximum throughput to 75 tons/yr which was more accurate. This more accurate information was included above to administratively modify the emission limitation.

b. Emission Limitation:

Particulate emissions (PE) shall not exceed 3.42 pounds per hour

Applicable Compliance Method:

The particulate emission limitation established shall be the more stringent of the two allowable emission rates determined by Table I or Figure II of OAC rule 3745-17-11.

The uncontrolled mass rate of emissions (UMRE) shall be used to determine the allowable emission limitation from Figure II. The UMRE was based on the potential emissions of 75 tons/yr (as detailed in f)(1)b. above), then reduced to a lbs/hr value by using the following calculation:

$$\text{UMRE} = 75 \text{ tpy} \times (1 \text{ yr}/8760 \text{ hrs}) \times (2000 \text{ lbs/ton}) = 17.12 \text{ lbs/hr}$$



From Figure II, the maximum allowable emissions $A = 0.20 \times (U) = 0.20 \times (17.12) = 3.42$ lbs/hr

Table I uses the process weight rate (P). P in amount of steel product processed equals 13 tons/hr. Using Table I, the allowable emission rate (E) in pounds per hour is determined by the following equation

$$E = 4.10 \times (P)^{0.67} = 4.10 \times (13)^{0.67} = 22.86 \text{ lb PE /hr}$$

The value from Figure II (3.42) is more stringent and is set as the allowable emission rate.

The value of 3.42 lbs/hr is less stringent than limit established pursuant to OAC rule 3745-31-05(A)(3)(a) of 0.75 tons/yr which is equivalent to 0.171 lbs/hr as shown below:

$$0.75 \text{ tons/yr} \times (1 \text{ yr}/8760 \text{ hrs}) \times (2000 \text{ lbs/ton}) = 0.171 \text{ lbs/hr} < 3.42 \text{ lbs/hr}$$

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC Rule 3745-17-03(B)(10).

c. Emission Limitation:

Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9, and the procedures specified in OAC rule 3745-17-03(B)(1).

g) Miscellaneous Requirements

- (1) None.



2. B005, 500 HP Clayton Steam Generator

Operations, Property and/or Equipment Description:

500 hp Clayton Steam Generator (a.k.a. boiler), natural gas fired with maximum heat input rating of 20.412 mmBtu/hr.

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)e.

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) [Best Available Technology (BAT) requirements originally established in permit 15-01552 issued on 09/30/2003]	Particulate emissions (PE/PM ₁₀) shall not exceed 0.41 lb/hr and 1.80 tons per year (TPY). Nitrogen oxide (NO _x) emissions shall not exceed 1.96 lb/hr and 8.58 TPY. Carbon monoxide (CO) emissions shall not exceed 1.65 lb/hr and 7.23 TPY. Organic compound (OC) emissions shall not exceed 0.22 lb/hr and 0.96 ton/yr. Sulfur dioxide (SO ₂) emissions shall not exceed 0.012 lb/hr and 0.05 ton/yr.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		See b)(2)a. and b)(2)b. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1), 3745-17-10(B)(1) and 40 CFR Part 60, Subpart Dc.
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack serving this emission unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule
c.	OAC rule 3745-17-10(B)(1)	Particulate emissions shall not exceed 0.020 lb/mmBtu actual heat input. This emission limitation specified by this rule is equivalent to the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-18-06 OAC rule 3745-18-82	Exempt. See b)(2)c.
e.	40 CFR Part 60 Subpart Dc (40 CFR 60.40c – 60.48c) [In accordance with 40 CFR 60.40c(a) this emissions unit is a steam generating unit with a maximum design heat input of 100 mmBtu/hr or less, but greater than 10 mmBtu/hr, for which construction commenced after June 9, 1989.]	See b)(2)d.

(2) Additional Terms and Conditions

- a. Compliance with OAC rule 3745-31-05(A) shall be demonstrated by compliance with the operational restriction in c)(1) below.
- b. The emission limitations in b)(1)a. are based on the emissions unit's potential to emit. Therefore, no monitoring, recordkeeping, and reporting requirements are necessary to ensure ongoing compliance with these emission limitations.
- c. This emission unit is exempt from requirements of OAC rule 3745-18-06 and 3745-18-82 pursuant to OAC rule 3745-18-06(A) because this unit only burns natural gas.



d. Based on firing only natural gas, this emissions unit is subject to only the applicable requirements pursuant to 40 CFR Part 60 Subpart Dc for record keeping and notification as specified in terms d)(2) and e)(2) of this permit.

c) Operational Restrictions

(1) The permittee shall burn only natural gas in this emissions unit.

d) Monitoring and/or Recordkeeping Requirements

(1) 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.

(2) The permittee shall comply with the applicable monitoring and record keeping requirements pursuant to 40 CFR Part 60, Subpart Dc, including the following section:

60.48c(g)(2)	Maintain records of the amount of natural gas combusted during each calendar month.
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e) Reporting Requirements

(1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency 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.

In addition to standard requirements for the PER, the permittee shall identify the following information in the annual PER:

- a. The annual amount of natural gas used in this emissions unit in scf; and
- b. The total annual emissions of NO_x, CO and (PE/PM₁₀) from this emissions unit for the previous calendar year.

(2) The permittee shall comply with the applicable notification requirements pursuant to 40 CFR Part 60, Subpart Dc, including the following section (if the information has not already been reported):

60.48c(a)	Notification of construction and startup dates
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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. Emissions Limitation:

Particulate emissions shall not exceed 0.020 lb/mmBtu actual heat input.

Applicable Compliance Method:

If required, the permitted shall demonstrate compliance with this emission limitation by stack testing in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5, and the procedures specified in OAC rule 3745-17-03(B)(9).

b. Emissions Limitation:

Particulate emissions (PE/PM₁₀) shall not exceed 0.41 lb/hr and 1.80 tons/yr.

Applicable Compliance:

The hourly limit was established by using the allowable emission factor found in OAC Rule 3745-17-10(B)(1). The 0.41lb/hr was derived by multiplying the Emission Unit Heat input rating by the Allowable Emission Factor (20.412 mmBtu/hr x 0.020 lb (PE/PM₁₀)/mmBtu).

Compliance is demonstrated by multiplying the maximum rated heat input to the furnace of 20.412 mmBtu/hr by the emissions factor (EF) for PE/PM₁₀, 7.6 lb/10⁶scf, taken from U.S. EPA AP-42 "Compilation of Air Pollutant Emission Factors," Section 1.4, Natural Gas Combustion, 7/98 and dividing by the natural gas heating value of 1040 Btu/scf in the following equation. Per AP-42, all PE is PM₁₀ or smaller in size when burning natural gas.

$$(20.412 \text{ mmBtu/hr.}) \times [(7.6 \text{ lb}/10^6 \text{ scf}) / (1,040 \text{ Btu}/\text{scf})] = 0.149 \text{ lbs (PE/PM}_{10}\text{)}/\text{hr}$$

$$0.149 \text{ lbs (PE/PM}_{10}\text{)}/\text{hr} < 0.41 \text{ lb (PE/PM}_{10}\text{)}/\text{hr emission limitation}$$

Additionally, the equipment manufacturer (Clayton Industries) for this specific model unit firing at 100% rate has provided the expected total emission rate of 0.155 lb/hr PE/PM₁₀. This rate is also less than the emission limitation of 0.41 lb (PE/PM₁₀)/hr. Therefore, compliance with the hourly emission limitation is assumed.

The annual limitation was established by multiplying the hourly emission rate of 0.149 lb (PE/PM₁₀)/hour by the maximum operating schedule of 8760 hrs/yr and dividing by 2000 lbs/ton. Therefore compliance with the lb/hr (PE/PM₁₀)emissions limitation demonstrates compliance with the annual (PE/PM₁₀)emissions limitation.

If required, the permitted shall demonstrate compliance with this emission limitation by stack testing in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5, and the procedures specified in OAC rule 3745-17-03(B)(9).



c. Emissions Limitation:

Nitrogen oxide (NO_x) emissions shall not exceed 1.96 lbs/hr and 8.58 tons/yr

Applicable Compliance Method:

The hourly emissions rate was established by multiplying the maximum rated heat input to the furnace of 20.412 mmBtu/hr by the emissions factor (EF) for NO_x, 100 lb/10⁶scf, taken from U.S. EPA AP-42 "Compilation of Air Pollutant Emission Factors," Section 1.4, Natural Gas Combustion, 7/98 and dividing by the natural gas heating value of 1040 Btu/scf in the following equation:

$$(20.412 \text{ mm Btu/hr.}) \times [(100 \text{ lb}/10^6 \text{ scf}) / (1,040 \text{ Btu}/\text{scf})] = 1.96 \text{ lbs NO}_x \text{ per hour}$$

$$1.96 \text{ lbs NO}_x/\text{hr} \times 8760 \text{ hrs}/\text{yr} \times 1 \text{ ton}/2,000 \text{ lbs} = 8.58 \text{ tons NO}_x/\text{yr.}$$

Additionally, the equipment manufacturer (Clayton Industries) for this specific model unit firing at 100% rate has provided the expected total emission rate of 0.088 lbs NO_x/mmBtu, which when multiplied by the maximum heat input (20.412 mm Btu/hr) equals 1.80 lbs NO_x/hr. This rate is also less than the emission limitation of 1.96 lbs NO_x/hr. Therefore, compliance with the hourly emission limitation is assumed.

The annual limitation was established by multiplying the hourly emission rate of 1.96 lb NO_x/hour by the maximum operating schedule of 8760 hrs/yr and dividing by 2000 lbs/ton. Therefore compliance with the lb/hr NO_x emissions limitation demonstrates compliance with the annual NO_x emissions limitation.

If required, the permittee shall demonstrate compliance with the hourly emissions limitation through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 4 and 7 or 7E. Alternative U.S. EPA approved test methods may be used with prior approval from the Canton City Health Department, Air Pollution Control Division.

d. Emissions Limitation:

Carbon monoxide (CO) emissions shall not exceed 1.65 lbs/hr and 7.23 tons/yr.

Applicable Compliance:

The hourly emissions rate was established by multiplying the maximum rated heat input to the furnace of 20.412 mmBtu/hr by the emission factor (EF) for CO, 84.0 lbs/10⁶scf, taken from U.S. EPA AP-42 "Compilation of Air Pollutant Emission Factors," Section 1.4, Natural Gas Combustion, 7/98 and dividing by the natural gas heating value of 1040 Btu/scf in the following equation:

$$20.412 \text{ mm Btu}/\text{hr.} \times [(84 \text{ lbs}/10^6 \text{ scf}) / (1,040 \text{ Btu}/\text{scf})] = 1.65 \text{ lbs CO lb}/\text{hour}$$

$$1.65 \text{ lbs CO}/\text{hr} \times 8,760 \text{ hrs}/\text{yr} \times 1 \text{ ton}/2,000 \text{ lbs} = 7.23 \text{ tons CO}/\text{yr}$$

Additionally, the equipment manufacturer (Clayton Industries) for this specific model unit firing at 100% rate has provided the expected total emission rate of 0.036 lbs CO/mmBtu, which when multiplied by the maximum heat input (20.412 mm Btu/hr) equals 0.73 lbs CO/hr. This rate is also less than the emission limitation of 1.65 lbs CO/hr. Therefore, compliance with the hourly emission limitation is assumed.

The annual limitation was established by multiplying the hourly emission rate of 1.65 lb CO/hour by the maximum operating schedule of 8760 hrs/yr and dividing by 2000 lbs/ton. Therefore compliance with the lb/hr CO emissions limitation demonstrates compliance with the annual CO emissions limitation.

If required, the permittee shall demonstrate compliance with the hourly emissions limitation through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 4 and 10. Alternative U.S. EPA approved test methods may be used with prior approval from the Canton City Health Department, Air Pollution Control Division.

e. Emissions Limitation:

Organic compound (OC) emissions shall not exceed 0.22 lb/hr and 0.96 ton/yr.

Applicable Compliance:

The hourly emissions rate was established by multiplying the maximum rated heat input to the furnace of 20.412 mmBtu/hr by the emission factor (EF) for OC, 11.0 lbs/10⁶scf, taken from U.S. EPA AP-42 "Compilation of Air Pollutant Emission Factors," Section 1.4, Natural Gas Combustion, 7/98 and dividing by the natural gas heating value of 1040 Btu/scf in the following equation:

$$20.412 \text{ mm Btu/hr.} \times [(11 \text{ lbs}/10^6 \text{ scf}) / (1,040 \text{ Btu}/\text{scf})] = 0.22 \text{ lb OC}/\text{hour}$$

$$0.22 \text{ lb OC}/\text{hr} \times 8,760 \text{ hrs}/\text{yr} \times 1 \text{ ton}/2,000 \text{ lbs} = 0.96 \text{ ton OC}/\text{yr}$$

Additionally, the equipment manufacturer (Clayton Industries) for this specific model unit firing at 100% rate has provided the expected total emission rate of 0.11 lb OC/hr. This rate is also less than the emission limitation of 0.22 lb OC/hr. Therefore, compliance with the hourly emission limitation is assumed.

The annual limitation was established by multiplying the hourly emission rate of 0.22 lb OC/hour by the maximum operating schedule of 8760 hrs/yr and dividing by 2000 lbs/ton. Therefore compliance with the lb/hr OC emissions limitation demonstrates compliance with the annual OC emissions limitation.

If required, the permittee shall demonstrate compliance with the hourly emissions limitation through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 18, 25, or 25A. Alternative U.S. EPA approved test methods may be used with prior approval from the Canton City Health Department, Air Pollution Control Division.



f. Emissions Limitation:

Sulfur dioxide (SO₂) emissions shall not exceed 0.012 lb/hr and 0.05 ton/yr.

Applicable Compliance:

The hourly emissions rate was established by multiplying the maximum rated heat input to the furnace of 20.412 mmBtu/hr by the emission factor (EF) for SO₂, 0.6 lb/10⁶scf, taken from U.S. EPA AP-42 "Compilation of Air Pollutant Emission Factors," Section 1.4, Natural Gas Combustion, 7/98 and dividing by the natural gas heating value of 1040 Btu/scf in the following equation:

$$20.412 \text{ mm Btu/hr.} \times [(0.6 \text{ lb}/10^6 \text{ scf}) / (1,040 \text{ Btu}/\text{scf})] = 0.012 \text{ lb SO}_2/\text{hour}$$

$$0.012 \text{ lb SO}_2/\text{hr} \times 8,760 \text{ hrs}/\text{yr} \times 1 \text{ ton}/2000 \text{ lbs} = 0.05 \text{ ton SO}_2/\text{yr}$$

Additionally, the equipment manufacturer (Clayton Industries) for this specific model unit firing at 100% rate has provided the expected total emission rate of 0.00059 lbs SO₂/mmBtu, which when multiplied by the maximum heat input (20.412 mm Btu/hr) equals 0.012 lbs SO₂/hr. This rate is equal to the emission limitation. Therefore, compliance with the hourly emission limitation is assumed.

The annual limitation was established by multiplying the hourly emission rate of 0.012 lb SO₂/hour by the maximum operating schedule of 8760 hrs/yr and dividing by 2000 lbs/ton. Therefore compliance with the lb/hr SO₂ emissions limitation demonstrates compliance with the annual SO₂ emissions limitation.

If required, the permittee shall demonstrate compliance with the hourly emissions limitation through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Method 6. Alternative U.S. EPA approved test methods may be used with prior approval from the Canton City Health Department, Air Pollution Control Division.

g. Emissions Limitation:

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

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9, and the procedures specified in OAC rule 3745-17-03(B)(1).

g) Miscellaneous Requirements

- (1) None.