



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

9/25/2015

Kathleen Nevitt
RTI ALLOYS- ALLOYS DIVISION
1550 MARIETTA AVE SE
CANTON, OH 44707

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 1576051522
Permit Number: P0116959
Permit Type: Initial Installation
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**

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

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 |

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 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
RTI ALLOYS- ALLOYS DIVISION**

| | |
|----------------|----------------------|
| Facility ID: | 1576051522 |
| Permit Number: | P0116959 |
| Permit Type: | Initial Installation |
| Issued: | 9/25/2015 |
| Effective: | 9/25/2015 |
| Expiration: | 9/25/2025 |



Division of Air Pollution Control
Permit-to-Install and Operate
for
RTI ALLOYS- ALLOYS DIVISION

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Final Permit-to-Install and Operate
RTI ALLOYS- ALLOYS DIVISION
Permit Number: P0116959
Facility ID: 1576051522
Effective Date: 9/25/2015

Authorization

Facility ID: 1576051522
Application Number(s): A0050529, A0051180
Permit Number: P0116959
Permit Description: Initial PTIOs for two induction furnaces and a torch cutting station.
Permit Type: Initial Installation
Permit Fee: \$2,500.00
Issue Date: 9/25/2015
Effective Date: 9/25/2015
Expiration Date: 9/25/2025
Permit Evaluation Report (PER) Annual Date: Apr 1 - Mar 31, Due May 15

This document constitutes issuance to:

RTI ALLOYS- ALLOYS DIVISION
1550 MARIETTA AVE.
CANTON, OH 44707

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: P0116959

Permit Description: Initial PTIOs for two induction furnaces and a torch cutting station.

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

| | |
|-----------------------------------|--------------------------|
| Emissions Unit ID: | P916 |
| Company Equipment ID: | Natural Gas Torch Cutter |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |

Group Name: Electric Induction Furnace

| | |
|-----------------------------------|----------------|
| Emissions Unit ID: | P914 |
| Company Equipment ID: | Furnace #5 |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | P915 |
| Company Equipment ID: | Furnace #6 |
| Superseded Permit Number: | |
| General Permit Category and Type: | Not Applicable |



Final Permit-to-Install and Operate
RTI ALLOYS- ALLOYS DIVISION
Permit Number: P0116959
Facility ID: 1576051522
Effective Date: 9/25/2015

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
RTI ALLOYS- ALLOYS DIVISION
Permit Number: P0116959
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Effective Date: 9/25/2015

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.



Final Permit-to-Install and Operate
RTI ALLOYS- ALLOYS DIVISION
Permit Number: P0116959
Facility ID: 1576051522
Effective Date: 9/25/2015

C. Emissions Unit Terms and Conditions

1. Electric Induction Furnace Group: P914, P915

| EU ID | Operations, Property and/or Equipment Description |
|--------------|---|
| P914 | Electric induction furnace and associated water cooling process Furnace #5. Exhausting outside to baghouse 5&6. |
| P915 | Electric induction furnace and associated water cooling process Furnace #6. Exhausting outside to baghouse 5&6. |

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) | Particulate Emissions (PE) shall not exceed 1.29 pounds per hour and 5.63 tons per year (stack only) from P914, P915 and P916 combined. |
| b. | OAC rule 3745-17-07(A) | Visible PE from the stack serving these emissions units shall not exceed 20 percent opacity, as a six-minute average, except as provided by rule. |
| c. | OAC rule 3745-17-07(B) | Visible PE of fugitive dust from this emissions unit shall not exceed twenty percent opacity, as a three-minute average. |



| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|----|-------------------------------|--|
| d. | OAC rule 3745-17-08(B) | See b)(2)a. below. |
| e. | OAC rule 3745-17-11(B) | PE shall not exceed 7.4 lbs/hr from P914 and P915 combined. The emissions limitation established by this rule is less stringent than the emissions limitation established by OAC rule 3745-31-05(A)(3). |

(2) Additional Terms and Conditions

- a. The installation and use of hoods, fans, and/or other equipment to adequately enclose, contain, capture, vent, and control fugitive dust from these emissions units shall meet the following requirements:
 - i. the collection efficiency shall be sufficient to minimize or eliminate visible emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design; and
 - ii. the control equipment for these emissions units 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 shall be no visible particulate emissions (whichever is less stringent) from the exhaust stack of these emissions units.

c) Operational Restrictions

- (1) The emissions from these emissions units shall be vented to a baghouse at all times these emissions units are in operation.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions units are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse 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.

The pressure drop across the baghouse shall be maintained within the range established during a performance test that demonstrates compliance with the particulate emission limitations while the emissions unit is in operation or the range recommended by the manufacturer.

This range or limit on the pressure drop across the baghouse 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(s). 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.

- (2) The permittee shall conduct periodic inspections of the baghouse system to determine whether the devices are operating in accordance with the manufacturer's recommendations, instructions, or operating manuals. The periodic inspections of the

baghouse shall be performed at a frequency that is based upon the recommendation of the manufacturer, and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency.

- (3) In addition to the periodic inspections described above, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the baghouse filter system while the emissions unit is shut down, and perform any needed maintenance and repair to ensure that it is able to routinely operate in accordance with the manufacturer's recommendations.
- (4) The permittee shall document each inspection (periodic and annual) of the dry particulate filter system by maintaining a record that includes the date of the inspection, a description of each problem identified and the date it was corrected, a description of the maintenance and repairs performed, and the name of the person who performed the inspection.
- (5) In the event that the baghouse system is not operating in accordance with the manufacturer's recommendations, instructions, or operating manuals, the baghouse system shall be expeditiously repaired or otherwise returned to operation in accordance with such requirements. The permittee shall maintain documentation of those periods when the dry particulate filter system is not operating in accordance with such requirements.
- (6) Notwithstanding the frequency of the monitoring and record keeping requirements specified in section d)(1), the permittee may reduce the pressure drop checks from daily readings to weekly readings if the following are met:
 - a. for 1 full quarter the facility's pressure drop records indicate no pressure drop readings outside the required range; and
 - b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section d)(1).

The permittee shall revert to daily readings if any pressure drop readings are observed outside of the required range.

- (7) The permittee shall perform weekly checks, when these emissions units are in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving these emissions units. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the location and color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible 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.

- (8) The permittee shall document each day whether or not the baghouse was in service when these emission units were in operation.
- (9) The permittee shall maintain the record keeping required by terms d)(1) thru d)(8) above on site for a period of not less than five years.

e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
- (2) 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.
- (3) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements in section d)(1) above:
- a. each period of time when the pressure drop across the baghouse(s) was outside the acceptable range(s);
 - b. an identification of each incident of deviation described in "a" above where a prompt investigation was not conducted;
 - c. an identification of each incident of deviation described in "a" where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range(s), was determined to be necessary and was not taken; and
 - d. an identification of each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action.
- (4) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in term number d)(7) above:



- a. all weeks during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving these emissions units; and
- b. any corrective actions taken to minimize or eliminate the visible 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:

PE shall not exceed 1.29 pounds per hour and 5.63 tons per year from P914, P915 and P916 combined.

Applicable Compliance Method:

The hourly limitation was calculated as follows:

Controlled Emissions (lbs/hr) =

$$0.01 \text{ grains/dscf} \times (1 \text{ lb}/7000 \text{ grains}) \times 15,000 \text{ cfm} \times (60 \text{ min}/\text{hr}) = 1.29 \text{ lbs/hr}$$
$$= 1.29 \text{ lbs/hr}$$

If required, compliance with the hourly allowable PE limitation above shall be determined by using the test method(s) and procedures in U.S. EPA Methods 1 through 5 of 40 CFR Part 60, Appendix A.

The annual emission limitation was developed by multiplying the hourly mass emission limitation by 8760 hours per year and then dividing by 2000. Therefore, provided compliance with the hourly limitation is shown, compliance with the annual limitation shall also be demonstrated.

b. Emission Limitation:

Visible PE from the stack serving these emission units shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

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

b. Emission Limitation:

Visible emissions of fugitive dust from these emission units shall not exceed 20 percent opacity, as a three minute average.

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance U.S. EPA Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3).

d. Emission Limitation:

the control equipment for these emissions units 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 shall be no visible particulate emissions (whichever is less stringent) from the exhaust stack of these emissions units

Applicable Compliance Method:

If required, compliance shall be determined in accordance with the procedures specified in OAC rule 3745-17-03(B)(7).

e. Emission Limitation:

PE shall not exceed 7.4 lbs/hr from P914 and P915 combined, pursuant to OAC rule 3745-17-11(B)(1). This limitation is less stringent than the limitation pursuant to OAC rule 3745-31-05(A)(3).

Paragraph (B)(1) of OAC rule 3745-17-11 applies because the source is located in Stark County. Emission limitations can be determined from either Table I or Figure II, with the more stringent of the two to be used.

Table I is based on maximum process weight rate (P) which is equal to 4,800 lbs/hr per the permit application. The Table 1 allowable emission rate becomes 7.4 lbs/hr.

Figure II is based on maximum uncontrolled particulate emissions rate, which in this case is calculated by dividing the particulate emission limit by the control efficiency of the control equipment (baghouse) of 99% (both provided by permittee) as shown below.

The hourly stack emission rate is equal to $0.01 \text{ grains/dscf} \times 15,000 \text{ cf/min} \times \text{lb}/(7000 \text{ grains}) \times 60 \text{ min/hr} = 1.29 \text{ lbs/hr}$

$$(1.29 \text{ lbs/hr}) \div (1 - 0.99) = 129 \text{ lbs PE/hr}$$

The Figure II value calculated above, 129 lbs PE/hr, was used to determine the allowable emissions rate from Figure II using curve P-1 of 12.8 lbs/hr.

The Table 1 value is more stringent than Figure II, so it becomes the emission limitation.

As can be seen above, the 1.29 lbs/hr emission limitation established pursuant to OAC rule 3745-31-05(A)(3), as derived from the 0.01 gr/dscf, is less than 7.4 lbs/hr, so it is more stringent.



Final Permit-to-Install and Operate
RTI ALLOYS- ALLOYS DIVISION
Permit Number: P0116959
Facility ID: 1576051522
Effective Date: 9/25/2015

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the hourly limitation by testing in accordance with OAC rule 3745-17-03(B)(10).

- g) Miscellaneous Requirements
 - (1) None.



2. P916, Natural Gas Torch Cutter

Operations, Property and/or Equipment Description:

Natural Gas Torch Cutter for cutting metal. Exhausting outside to baghouse 5&6.

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), as effective June 30, 2008 [Best Available Technology (BAT)] | Install a baghouse that is designed to meet 0.01 grains of particulate matter less than 10 microns in size (PM10)/dscf. See b)(2)a. and b)(2)b. |
| b. | OAC rule 3745-31-05(A)(3)(a)(ii), as effective June 8, 2008 [Less than 10 tpy BAT exemption] | The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to PM10 emissions since the calculated annual emission rate is less than 10 tons per year taking into account the voluntary restriction from OAC rule 3745-31-05(E). The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to NOx, CO, VOC and SO2 emissions since the calculated annual emission rate is less than 10 tons per year. See b)(2) c.. |



| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|----|-------------------------------|---|
| c. | OAC rule 3745-31-05(E) | Install a baghouse that is designed to meet 0.01 grains of PM10/dscf 5.63 tons PM10 per year from P914, P915 and P916 combined. |
| d. | OAC rule 3745-17-07(A) | Visible particulate emissions from the stack serving this emission unit 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 from this emissions unit shall not exceed twenty percent opacity, as a three-minute average. |
| f. | OAC rule 3745-17-08(B) | See b)(2)d., c)(1), and c)(2). |
| g. | OAC rule 3745-17-11(B) | PE shall not exceed 12.8 pounds per hour. |
| h. | OAC rule 3745-18-06(E) | See b)(2)e. |

(2) Additional Terms and Conditions

- a. This BAT emission limit applies until U.S. EPA approves Ohio Administrative Code paragraph (OAC) 3745-31-05(A)(3)(a)(ii) [the less than 10 tons per year BAT exemption] into the Ohio State Implementation Plan (SIP).
- b. The emissions from the combustion of natural gas are negligible and will not be addressed in this permit.
- c. These requirements apply once U.S. EPA approves OAC rule 3745-31-05(A)(3)(a)(ii) [the less than 10 tons per year BAT exemption] as part of the Ohio SIP.
- d. The permittee shall employ reasonably available control measures (RACM) to minimize or eliminate visible particulate emission of fugitive dust. These control measures shall include, but not be limited to, the following:
 - i. The installation and use of hoods, fans, and/or other equipment to adequately enclose, contain, capture, vent, and control fugitive dust from this emissions unit and shall meet the following requirements:
 - (a) the collection efficiency shall be sufficient to minimize or eliminate visible emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design; and
 - (b) 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 shall be no visible particulate emissions (whichever is less stringent) from the exhaust stack of this emissions unit.

- ii. Employing good operating practices to minimize accidental fires. Such practices shall include, but not be limited to, the following items: cutting metal that is clean of any oils(s) or other combustible fluids, the minimization of flame impingement with the ground, and the use of appropriately sized cutting torches.

Implementation of the control measures mentioned above is appropriate and sufficient to satisfy the requirements of OAC 3745-17-08. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- e. This emissions unit is exempt from the requirements of OAC rule 3745-18-06(E) in accordance with OAC rule 3745-18-06(A).

c) Operational Restrictions

- (1) All torch cutting operations shall be performed under the hood and the baghouse shall be operating at all times during torch cutting operations.
- (2) The permittee shall have fire extinguishers of the appropriate type located near the torch cutting operations and they shall be employed promptly to extinguish any accidental fires caused by the torch cutting operations.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain daily records that document any time periods when the baghouse was not operating during torch cutting operations.
- (2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit is in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on 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.

The pressure drop across the baghouse shall be maintained within the range established during a performance test that demonstrates compliance with the particulate emission limitations while the emissions unit is in operation or the range recommended by the manufacturer.

This range or limit on the pressure drop across the baghouse 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(s). 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 conduct periodic inspections of the baghouse system to determine whether the devices are operating in accordance with the manufacturer's recommendations, instructions, or operating manuals. The periodic inspections of the baghouse shall be performed at a frequency that is based upon the recommendation of the manufacturer, and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency.

- (4) In addition to the periodic inspections described above, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the baghouse filter system while the emissions unit is shut down, and perform any needed maintenance and repair to ensure that it is able to routinely operate in accordance with the manufacturer's recommendations.
- (5) The permittee shall document each inspection (periodic and annual) of the dry particulate filter system by maintaining a record that includes the date of the inspection, a description of each problem identified and the date it was corrected, a description of the maintenance and repairs performed, and the name of the person who performed the inspection.
- (6) In the event that the baghouse system is not operating in accordance with the manufacturer's recommendations, instructions, or operating manuals, the baghouse system shall be expeditiously repaired or otherwise returned to operation in accordance with such requirements. The permittee shall maintain documentation of those periods when the dry particulate filter system is not operating in accordance with such requirements.
- (7) Notwithstanding the frequency of the monitoring and record keeping requirements specified in section d)(2), the permittee may reduce the pressure drop checks from daily readings to weekly readings if the following are met:
 - a. for 1 full quarter the facility's pressure drop records indicate no pressure drop readings outside the required range; and
 - b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section d)(2).

The permittee shall revert to daily readings if any pressure drop readings are observed outside of the required range.
- (8) The permittee shall perform weekly checks, when this emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the location and color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible 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.

- (9) The permittee shall document each day whether or not the baghouse was in service when this emission unit was in operation.
- (10) The permittee shall maintain the record keeping required by terms d)(1) thru d)(9) above on site for a period of not less than five years.

e) Reporting Requirements

- (1) The permittee shall report any and all accidental fires that may be caused by the torch cutting operations. A written report shall be submitted to the CCHD, APCD no later than 15 days following the incident.
- (2) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
- (3) 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.
- (4) The permittee shall identify in the annual permit evaluation report the following information concerning the operations of the baghouse during the 12-month reporting period for this emissions units:
 - a. all days and time periods during which the baghouse was not operating during torch cutting operations.
 - b. each period of time when the pressure drop across the baghouse(s) was outside the acceptable range(s);
 - c. an identification of each incident of deviation described in "a" above where a prompt investigation was not conducted;
 - d. an identification of each incident of deviation described in "a" where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range(s), was determined to be necessary and was not taken; and
 - e. an identification of each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action.

- (5) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in term number d)(8) above:
- a. all weeks 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. any corrective actions taken to minimize or eliminate the visible 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:

Install a baghouse that is designed to meet 0.01 grains of PM₁₀/dscf and 5.63 tons per year from P914, P915 and P916 combined.

Applicable Compliance Method:

If required, compliance with gr/dscf limitation above shall be determined by using the test method(s) and procedures in U.S. EPA Methods 1 through 4 of 40 CFR Part 60, Appendix A and U.S. EPA Methods 201/201A and 202 of 40 CFR Part 51, Appendix M.

The annual emission limitation was developed by multiplying the baghouse outlet emission limitation of 0.01 gr of PM₁₀/dscf by the baghouse exhaust flow rate (30,000 ACFM), the grain-to-pound conversion factor (1 lb/7000 grains), 60 min/hr and 8760 hours per year and then dividing by 2000. Therefore, provided compliance with the gr/dscf limitation is shown, compliance with the annual limitation shall also be demonstrated.
 - b. Emission Limitation:

Visible PE from the stack serving this emission unit shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with U.S. EPA Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1).
 - c. Emission Limitation:

Visible emissions of fugitive dust from this emission unit shall not exceed 20 percent opacity, as a three minute average.



Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance U.S. EPA Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3).

d. Emission Limitation:

PE shall not exceed 12.8 pounds per hour.

Applicable Compliance Method:

Paragraph (B)(1) of OAC rule 3745-17-11 applies because the source is located in Stark County. Emission limitations can be determined from either Table I or Figure II, with the more stringent of the two to be used.

Table I is based on maximum process weight rate (P). The process weight rate was not available.

Figure II is based on maximum uncontrolled particulate emissions rate, which in this case is calculated by dividing the particulate emission limit by the control efficiency of the control equipment (baghouse) of 99% (both provided by permittee) as shown below.

The hourly stack emission rate is equal to $0.01 \text{ grains/dscf} \times 15,000 \text{ cf/min} \times \text{lb}/(7000 \text{ grains}) \times 60 \text{ min/hr} = 1.29 \text{ lbs/hr}$

$$(1.29 \text{ lb/hr}) \div (1 - 0.99) = 129 \text{ lbs PE/hr}$$

The Figure II value calculated above, 129 lbs PE/hr, was used to determine the allowable emissions rate from Figure II using curve P-1 of 12.8 lbs/hr.

As can be seen above, the hourly rate of 1.29 lbs/hr, as derived from the 0.01 gr/dscf emission limitation pursuant to OAC rule 3745-31-05(E), is less than 12.8 lbs/hr, so it is more stringent.

g) Miscellaneous Requirements

(1) None.