Ohio Environmental Protection Agency

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

5/6/2016

Certified Mail

Facility ID: 1318170314
Permit Number: P0118761
County: Cuyahoga

Mr. Michael Weber
ALCOA-Cleveland Works
1600 Harvard Avenue
Cuyahoga Heights, OH 44105-3092

RE: FINAL AIR POLLUTION CONTROL TITLE V PERMIT
Permit Type: Minor Permit Modification

Dear Permit Holder:

Enclosed is a finalOhio Environmental Protection Agency (EPA) Air Pollution Title V permit that allows you to operate the facility in the manner indicated in the permit. Because this permit may contain several conditions and restrictions, we urge you to read it 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 Title V permit 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 this permit, please contact the Cleveland Division of Air Quality as indicated on page one of your permit.

Sincerely,

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

Cc: U.S. EPA Region 5*Via E-Mail Notification*
Cleveland Division of Air Quality

FINAL

Division of Air Pollution Control
Title V Permit
for
ALCOA-Cleveland Works

Facility ID:	1318170314
Permit Number:	P0118761
Permit Type:	Minor Permit Modification
Issued:	5/6/2016
Effective:	5/6/2016
Expiration:	5/20/2018

Ohio Environmental Protection Agency

Division of Air Pollution Control
Title V Permit
for
ALCOA-Cleveland Works

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Authorization

Facility ID:	1318170314
Facility Description:	Aluminum forging operation
Application Number(s):	A0053012
Permit Number:	P0118761
Permit Description:	Title V minor permit modification to the following emissions units in order to establish the PM10 emission limitations as permanently enforceable: P007 - P014, P017 - P019, P029, P030, P087, P091-P094, P100, P104, P129, P164, P165, P429 and P432. The hourly PM10 emission rates were also adjusted to reflect current stack test results for P007 through P010, P018, P019, and P129 with no increase in allowable PM10 facility-wide emissions.
Permit Type:	Minor Permit Modification
Issue Date:	5/6/2016
Effective Date:	5/6/2016
Expiration Date:	5/20/2018
Superseded Permit Number:	P0104832

This document constitutes issuance of an OAC Chapter 3745-77 Title V permit to:

ALCOA-Cleveland Works
1600 Harvard Avenue
Cuyahoga Heights, OH 44105-3092

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

Cleveland Division of Air Quality
2nd Floor
75 Erieview Plaza
Cleveland, OH 44114
(216)664-2297

The above named entity is hereby granted a Title V permit pursuant to Chapter 3745-77 of the Ohio Administrative Code. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. You will be sent a notice approximately 18 months prior to the expiration date regarding the renewal of this permit. If you do not receive a notice, please contact the Cleveland Division of Air Quality. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, if a timely renewal application is submitted. A renewal application will be considered timely if it is submitted no earlier than 18 months and no later than 6 months prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Craig W. Butler
Director

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:

(1) Standard Term and Condition A. 24., Reporting Requirements Related to Monitoring and Record Keeping Requirements of State-Only Enforceable Permit Terms and Conditions

(2) Standard Term and Condition A. 25., Records Retention Requirements for State-Only Enforceable Permit Terms and Conditions

(3) Standard Term and Condition A. 27., Scheduled Maintenance/Malfunction Reporting For State-Only Requirements

(4) Standard Term and Condition A. 29., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(5) Standard Term and Condition A. 30.

(Authority for term: ORC 3704.036(A))

2. Monitoring and Related Record Keeping and Reporting Requirements

a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit), the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

(1) The date, place (as defined in the permit), and time of sampling or measurements.

(2) The date(s) analyses were performed.

(3) The company or entity that performed the analyses.

(4) The analytical techniques or methods used.

(5) The results of such analyses.

(6) The operating conditions existing at the time of sampling or measurement.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))

b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include all calibration and maintenance records and all original strip-chart recordingsfor continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))

c) The permittee shall submit required reports in the following manner:

(1) All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:

Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted by January 31, April 30, July 31, and October 31 of each year in accordance with Standard Term and Condition A.2.c)(2) below; and each report shall cover the previous calendar quarter. An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the owner or operator of the affected air contaminant source or air pollution control equipment complies with the requirements of OAC rule 3745-17-07(A)(3)(c).

In accordance with OAC rule 3745-15-06, a malfunction reportable under OAC rule 3745-15-06(B) is a deviation of the federally enforceable permit requirements. Even though verbal notifications and written reports are required for malfunctions pursuant to OAC rule 3745-15-06, the written reports required pursuant to this term must be submitted quarterly to satisfy the prompt reporting provision of OAC rule 3745-77-07(A)(3)(c).

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any submittedscheduled maintenancerequests, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

(2) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit or, in some cases, in section B. Facility-Wide Terms and Conditions of this Title V permit), all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the

probable cause of such deviations, and (c) any corrective actions or preventive measures taken, shall be submitted promptly to the Cleveland Division of Air Quality. Except as provided below, the written reports shall be submitted by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

In identifying each deviation, the permittee shall specify the emission limitation(s), operational restriction(s), and/or control device operating parameter limitation(s) for which the deviation occurred, describe each deviation, and provide the estimated magnitude and duration of each deviation.

These written deviation reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. Full compliance with OAC rule 3745-77-07(A)(3)(c) requires reporting of all other deviations of the federally enforceable requirements specified in the permit as required by such rule.

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement satisfies the reporting requirements specified in this Standard Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement will also satisfy (for the deviations so reported) the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations, and additional quarterly deviation reports for that specific emission limitation, operational restriction, or control device parameter limitation are not required pursuant to this Standard Term and Condition.

See A.29 below if no deviations occurred during the quarter.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

(3) All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with Standard Term and Condition A.2)c)(2) above shall be submitted in the following manner:

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; Standard Terms and Conditions: A.3, A.4, A.5, A.7.e), A.8, A.13, A.15, A.19, A.20, A.21, and A.23 of this Title V permit, as well as any deviations from the requirements in section C. Emissions Unit Terms and Conditions of this Title V permit, and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with Standard Term and Condition A.2.c)(2) above shall be submitted to the Cleveland Division of Air Quality by January 31 and July 31 of each year; and each report shall cover the previous six calendar months. Unless otherwise specified by rule, all other deviations from federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally enforceable

requirements not specifically addressed by permit or rule for the insignificant activities or emissions levels (IEU) identified in section B. Facility-Wide Terms and Conditions of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

In identifying each deviation, the permittee shall specify the federally enforceable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation.

These semi-annual and annual written reports shall satisfy the reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with Standard Term and Condition A.2.c)(2) above.

If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such deviations occurred during that period.

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii) and OAC rule 3745-77-07(A)(13)(b))

(4) Each written report shall be signed by a Responsible Official certifying that, "based on information and belief formed after reasonable inquiry, the statements and information in the report (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete." Signature by the Responsible Official may be represented by entry of the personal identification number (PIN) by the Responsible Official as part of the electronic submission process or by the scanned attestation document signed by the Responsible Official that is attached to the electronically submitted written report.

(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

(5) Consistent with A.2.c.1. above, reports of any required monitoring and/or record keeping information required to be submitted to Ohio EPA shall be submitted to Cleveland Division of Air Quality unless otherwise specified.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

3. Reporting of Any Exceedence of a Federally Enforceable Emission Limitation or Control Requirement Resulting From Scheduled Maintenance

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in Standard Term and Condition A.2.c)(1) above.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

4. Risk Management Plans

If applicable, the permittee shall develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq. ("Act"); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

a) a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or

b) as part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

(Authority for term: OAC rule 3745-77-07(A)(4))

5. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

(Authority for term: OAC rule 3745-77-07(A)(5))

6. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

(Authority for term: OAC rule 3745-77-07(A)(6))

7. General Requirements

a) Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.

b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permitexcept as provided pursuant to A.16 below.

c) This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.11 below. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d) This permit does not convey any property rights of any sort, or any exclusive privilege.

e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

f) Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable when:

(1) the permittee submits an approved facility-wide potential to emit analysis supporting a claim that the facility no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on the permanent shutdown and removal of one or more emissions units identified in this permit; or

(2) the permittee no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable ; or

(3) a combination of (1) and (2) above.

The permittee shall continue to comply with all applicable OAC Chapter 3745-31 requirements for all regulated air contaminant sources once this permit ceases to be enforceable. The permittee shall comply with any residual requirements, such as quarterly deviation reports, semi-annual deviation reports, and annual compliance certifications covering the period during which this Title V permit was enforceable. All records relating to this permit must be maintained in accordance with law.

(Authority for term: OAC rule 3745-77-01(W), OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77(A)(7))

8. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78.

(Authority for term: OAC rule 3745-77-07(A)(8))

9. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

(Authority for term: OAC rule 3745-77-07(A)(9))

10. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these standard terms and conditions shall apply to all operating scenarios authorized in this permit.

(Authority for term: OAC rule 3745-77-07(A)(10))

11. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

a) Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.

b) This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.

c) The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.

d) The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))

12. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

(Authority for term: OAC rule 3745-77-07(B))

13. Compliance Requirements

a) Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a Responsible

Officialthat, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

(1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.

(3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

(4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

c) The permittee shall submit progress reports to the Cleveland Division of Air Quality concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

(1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

(2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

d) Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the Cleveland Division of Air Quality) and the Administrator of the U.S. EPA in the following manner and with the following content:

(1) Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.

(2) Compliance certifications shall include the following:

a. Identification of each term or condition that is the basis of the certification. The identification may include a statement by the Responsible Official that every term and condition that is federally enforceable has been reviewed, and such terms and conditions with which there has been continuous compliance throughout the year are not separately identified.

b. The permittee's current compliance status.

c. Whether compliance was continuous or intermittentconsistent with A.13.d.2.a above.

d. The method(s) used for determining the compliance status of the source currently and over the required reporting period consistent with A.13.d.2.a above.

e. Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.

(3) Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))

14. Permit Shield

a) Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.

b) This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

(Authority for term: OAC rule 3745-77-07(F))

15. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the Cleveland Division of Air Quality with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the Cleveland Division of Air Quality as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

(Authority for term: OAC rules 3745-77-07(H)(1) and (2))

16. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

(Authority for term: OAC rule 3745-77-07(G))

17. Off-Permit Changes

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

a) The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.

b) The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as insignificant emissions levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.

c) The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).

d) The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e) The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit-to-install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(Authority for term: OAC rule 3745-77-07(I))

18. Compliance Method Requirements

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Federal Register 8314, Feb. 24, 1997), in the context of any future proceeding.

(This term is provided for informational purposes only.)

19. Insignificant Activities or Emissions Levels

Each IEU that is subject to one or more applicable requirements shall comply with those applicable requirements.

(Authority for term: OAC rule 3745-77-07(A)(1))

20. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

(Authority for term: OAC rule 3745-77-07(A)(1))

21. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

(Authority for term: OAC rule 3745-77-07(A)(1))

22. Permanent Shutdown of an Emissions Unit

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification from the Responsible Official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the Responsible Official that the emissions unit was permanently shut down.

After the date on which an emissions unit is permanently shut down (i.e., that 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 and therefore ceases to meet the definition of an "emissions unit" as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any Title V permit requirements applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

Unless otherwise exempted, noemissions unit identified in this permit that has beencertified by the Responsible Official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.

(Authority for term: OAC rule 3745-77-01)

23. Title VI Provisions

If applicable, the permittee shall comply with the standards for recycling and reducing emissions of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

a) Persons operating appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 CFR 82.156.

b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment specified in 40 CFR 82.158.

c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

(Authority for term: OAC rule 3745-77-01(H)(11))

24. Reporting Requirements Related to Monitoring and Record Keeping Requirements Under State Law Only

The permittee shall submit required reports in the following manner:

a) Reports of any required monitoring and/or record keeping information shall be submitted to theCleveland Division of Air Quality.

b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Cleveland Division of Air Quality. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

25. Records Retention Requirements Under State Law Only

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

26. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine

whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

(Authority for term: OAC rule 3745-77-07(C))

27. Scheduled Maintenance/Malfunction Reporting For State-Only Requirements

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the Cleveland Division of Air Quality in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

28. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The Cleveland Division of Air Quality must be notified in writing of any transfer of this permit.

(Authority for term: OAC rule 3745-77-01(C))

29. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

The permittee is not required to submit a quarterly report which states that no deviations occurred during that quarter for the following situations:

a) where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in Standard Term and Condition A.2.c)(2); or

b) where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potential to emit; or

c) where the company's Responsible Official has certified that an emissions unit has been permanently shut down.

30. Submitting Documents Required by this Permit

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

B. Facility-Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

   a) None.

2. All asbestos renovation and demolition activities conducted at this facility shall be performed in accordance with the applicable requirements specified in 40 CFR Part 61 and OAC Chapter 3745-20.

   [Authority for term: OAC rule 3745-77-07(A)(13) and 40 CFR Part 61 and OAC Chapter 3745-20]

3. The emissions of hazardous air pollutants (HAPs), as defined in Section 112(b) of Title III of the Clean Air Act, from all the emissions units at this facility (non-insignificant and insignificant), shall not exceed 9.9 TPY for any individual HAP, as a rolling, 12-month summation, and 24.9 TPY for total combined HAPs, as a rolling, 12-month summation.

   The permittee has voluntarily accepted these restrictions on HAP emissions to avoid being classified as a major source of HAP and subject to federal Maximum Achievable Control Technology (MACT) standards. The permittee has existing records to demonstrate, based upon a rolling, 12-month summation, that HAP emissions have not exceeded HAP major source thresholds. HAPs are emitted from the following non-insignificant and insignificant emissions units at this facility:

   a) P003, P004, P046, P048, P049, P054, P055, P102, P107, P402, F006, F007, F008, F010, F011, F012, F015, F016, F017, F018, F019, F020, F023, F024, F025 and F026 (which emit hydrogen fluoride (HF) due to hydrogen scavenger usage);

   b) B008, B009, P003, P004, P046, P048, P049, P054, P055, P102, P107, P402, F006, F007, F008, F010, F011, F012, F015, F016, F017, F018, F019, F020, F023, F024, F025, F026 and P166 (which emit various HAPs due to natural gas combustion);

   c) P033 and P090 (which emits HF from titanium pickling); and

   d) P123, P167, P168, P169, P170, P171, P172, P173, P174, P175 and P176 (metal fabrication operations which emit HAP emissions of chromium, lead, manganese, and nickel due to sawing, forming, etc.).

   [Authority for term: OAC rule 3745-77-07(B)]

4. The permittee shall use the following calculation methodologies to estimate HAP emissions for this facility, which shall be performed by the permittee in the month following the end of each calendar quarter for each month of the previous calendar quarter:

   a) Hydrogen Scavenger Usage

      (1) Monthly HF emissions from emissions units P003, P004, P046, P048, P049, P054, P055, P102, P107, P402, F006, F007, F008, F010, F011, F012, F015, F016, F017, F018, F019, F020, F023, F024, F025 and F026 shall be calculated as follows:

         a. lbs hydrogen scavenger used/month x lb hydrogen fluoride emitted/lb hydrogen scavenger used* (from the latest emissions test for the hydrogen scavenger) x ton/2,000 lb = tons of HF/month.

*The HAP emission factor has been determined stoichiometrically in calculations supplied by the permittee. Until the results of the source testing required by this permit are available, the current emission factor of 0.1908 lb HF/lb hydrogen scavenger, as supplied by the permittee shall be used.

b. Sum the monthly emissions of HF in tons with the previous 11 month's emissions to get the rolling, 12-month summation of HF emissions.

[Authority for term: OAC rule 3745-77-07(C)(1)]

b) Natural Gas Combustion

The HAP emissions from the combustion sources at the facility shall be calculated using records maintained by the permittee of the monthly natural gas using either emission factors specified in the most recent edition of USEPA publication AP-42, Chapters 1.3 and 1.4 for the combustion of natural gas, or other emission factors supplied by the permittee and approved by the Cleveland Division of Air Quality (Cleveland DAQ) such as results of the most recent performance stack test or manufacturer emission data.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c) Emissions Unit P033 - Titanium Pickling (significant emissions unit)

The permittee performed stack testing on this emissions unit in 1991 and determined an hourly hydrogen fluoride emission rate (0.532 lb HF/hour). The stack test results have been used for the SARA 313 reporting requirements. The acid baths for this emissions unit operate continuously, 8,760 hours/year, even though metal is not continuously processed through these units. Therefore, the potential to emit hydrogen fluoride is calculated as follows:

0.532 lb HF/hr x 8,760 hrs/year x ton/2,000 lbs = 2.33 tons/year HF

Since the above represents the potential to emit for this emissions unit, there are no record keeping requirements necessary for this emissions unit; however, this potential to emit shall be included in the rolling, 12-month summation of single HAP (HF) emissions.

[Authority for term: OAC rule 3745-77-07(C)(1)]

d) Emissions Unit P090 - Magnesium and Titanium Pickling (insignificant emissions unit)

Based on stack testing for Emission unit P033, the permittee has calculated the hydrogen fluoride emission rate from P090 to be 0.065 lbs HF/hour (when using HF). The potential to emit hydrogen fluoride is calculated as follows:

0.065 lbs HF/hour x 8,760 hrs/year x ton/2,000 lbs = 0.285 tons HF/year / 12 = 0.024 tons HF/month

Since the above represents the potential to emit for this emissions unit, there are no record keeping requirements necessary for this emissions unit; however, this potential to emit shall be included in the rolling, 12-month summation of single HAP (HF) emissions when using HF in P090.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Metal Fabrication Operations (P123, P167, P168, P169, P170, P171, P172, P173, P174, P175 and P176)

Chromium, lead, manganese, and nickel emissions are generated from sawing, forming and other metal fabrication operations. From past SARA 313 reports, it has been determined that the actual amount of each of these HAPs is less than 0.1 ton/year. Consequently, no record keeping is necessary for these operations; however, the 0.05 TPY emissions for each of these HAPs shall be included in the total rolling, 12-month summation of individual HAP and total combined HAPs emissions.

[Authority for term: OAC rule 3745-77-07(C)(1)]

5. The permittee shall maintain monthly records, compiled no less often than once per calendar quarter during the month following the end of the calendar quarter, of the following:

a) for the emissions units identified in 3.a) and 4.a) above that use hydrogen scavenger:

(1) the amount of hydrogen scavenger employed (in pounds);

(2) the amount of the HF emissions (in tons), calculated as specified above;

(3) the total amount of HF emissions from P033, P090; and

(4) the total facility wide HF emissions.

b) for the emissions units that combust natural gas in 3.b) above:

(1) the amount of natural gas (in mmcf) consumed for the entire facility;

(2) the amount of each individual HAP (in tons) as calculated above.

[Authority for term: OAC rule 3745-77-07(C)(1)]

6. The permittee shall maintain monthly records, compiled no less often than once per calendar quarter during the month following the end of the quarter, of the following information for all of the HAP emitting emissions units (non-insignificant and insignificant) at the facility:

a) the total, facility-wide emissions (and associated calculations) for each individual HAP, in tons per month, calculated by summing the individual HAP emission rates from all of the HAP emitting emissions units at the facility;

b) the total, facility-wide emissions (and associated calculations) for total combined HAPs, in tons per month, calculated by summing all of the HAP emission rates from all of the HAP emitting emissions units at the facility;

c) the rolling, 12-month summation of the monthly individual HAP emissions for each HAP from all of the HAP emitting emissions units at the facility, in tons; and

d) the rolling, 12-month summation of the monthly total combined HAPs emissions from all of the HAP emitting emissions units at the facility, in tons.

[Authority for term: OAC rule 3745-77-07(C)(1)]

7. The permittee shall submit quarterly deviation (excursion) reports that identify all of the following:

a) each month during which the rolling, 12-month emission rate of an individual HAP at the facility exceeded 9.9 tons; and

b) each month during which the rolling, 12-month combined HAPs emission rate for the facility exceeded 24.9 tons.

[Authority for term: OAC rule 3745-77-07(A)(13)]

8. The following insignificant emissions units are located at this facility:

EU ID	Operations, Property and/or Equipment Description
B010	300 KW Auto Etch Emergency Generator (OAC rule 3745-31-03(A)(4)(b));
B011	100 HP Emergency Generator - Building 118 (OAC rule 3745-31-03(A)(4)(b));
B012	Emergency Generator (OAC rule 3745-31-03(A)(4)(b));
P124	#6 die preheat furnace in bldg 206, OAC rule 3745-31-05(A)(3) (PTI#13-1851)

Each insignificant emissions unit at this facility must comply with all applicable State and Federal regulations, as well as any emissions limitations and/or control requirements contained within a permit-to-install for that emissions unit. Insignificant emissions units listed above that are not subject to specific permit-to-install requirements are subject to one or more applicable requirements contained in the federally-approved versions of OAC Chapters 3745-17, 3745-18, and/or 3745-21.

[Authority for term: OAC rule 3745-77-07(A)(13)]

C. Emissions Unit Terms and Conditions

1. F018, Furnace 2503 B114

Operations, Property and/or Equipment Description:

Building 114, 0.25 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 2503), operating at a maximum process weight rate of 2,500 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO_2) are fugitive emissions.)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
b.	OAC rule 3745-17-08(B)	See b)(2)a.
c.	OAC rule 3745-18-06(E)	See b)(2)b.

(2) Additional Terms and Conditions

a. The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

b. The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to

establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

c) Operational Restrictions

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

[Authority for term: OAC rule 3745-77-07(A)(1)]

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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing 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. the total duration of any visible emission incident;

c. any corrective actions taken to eliminate the visible emissions;

d. whether the emissions are representative of normal operations; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of fugitive dust observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. <u>Emission Limitation</u>:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

<u>Applicable Compliance Method</u>:
Compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit. This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) F018 was installed in February 1941 and is a fugitive source.

[Authority for term: OAC rule 3745-77-07(C)(1)]

2. F027, Furnace T-10 B206

Operations, Property and/or Equipment Description:

Building 206, 13.98 mmBtu/hr, direct heat, natural gas-fired titanium preheat furnace (number T-10), not using hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO_2) are fugitive emissions.)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
b.	OAC rule 3745-17-08(B)	See b)(2)a.
c.	OAC rule 3745-18-06(E)	See b)(2)b.

(2) Additional Terms and Conditions

a. No control measures are required for this emissions unit.

b. The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

c) Operational Restrictions

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

[Authority for term: OAC rule 3745-77-07(A)(1)]

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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
Compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit. This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) F027 was installed in February 1955 and is a fugitive source.

[Authority for term: OAC rule 3745-77-07(C)(1)]

3. P011, Press 15000

Operations, Property and/or Equipment Description:

Building 112A, number 15000 (ton) hydraulic press complex for the production of metal forgings, operating at a maximum batch process weight rate of 20,400 lbs/hr of metal.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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 3745-17-07(A)(1)	Visible particulate emissions from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
b.	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
c.	OAC rule 3745-17-08(B)	See b)(2)b.
d.	OAC rule 3745-17-11(B)	See b)(2)a.
e.	OAC rule 3745-21-07(M)(4)	For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit.See b)(2)c.
f.	OAC rule 3745-21-07(M)	For the lubricants that are not exposed to temperatures >220 degrees F or flame, there are no applicable requirements from this rule.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
g.	OAC rule 3745-77-07(B)	PM_{10} emissions shall not exceed 6.5 lbs/hr. See b)(2)e. below.

(2) Additional Terms and Conditions

a. The uncontrolled mass rate of particulate emissions (PE) from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 pounds per hour. Therefore, to ensure that Figure II will not be applicable, the uncontrolled mass rate of PE is limited to less than 10 pounds per hour.

b. The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the captured fugitive dust emissions to the water spray tunnel. 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.

c. The Ohio EPA has determined that OAC rule 3745-21-07(M)(4) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(M)(4) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(M) pursuant to OAC rule 3745-21-07(M)(5)(c) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

d. As specified in OAC rule 3745- 21-07(M)(5)(d), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(M):

i. the volatile content of the lubricant consists only of water and liquid organic material; and

ii. the liquid organic material comprises not more than twenty per cent, by volume, of said volatile content.

e. This emission limit is based on air dispersion modeling conducted in August of 2006 to determine and maintain compliance with the 24-hour and annual PM_{10} National Ambient Air Quality Standards (NAAQS).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. the amount of each lubricant employed, in pounds;

c. the PE factor (and PM_{10} factor if available) for each lubricant employed, in pounds of PE (and PM_{10}) per pound of lubricant;

d. the total PE (and PM_{10}) rate for all lubricants employed, in pounds of PE (and PM_{10}) per day, calculated as the sum of (c) x (d) for all lubricants employed;

e. the total number of hours the emissions unit was in operation; and

f. the average hourly PE (and PM_{10}) emission rate calculated as (e)/(f), in lbs/hr (average).

NOTE: See f)(1)c. and f)(1)f. regarding the record keeping applicability.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall maintain the following information for this emissions unit:

a. the company identification for each lubricant employed and documentation as to whether or not:

i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);

ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(M) as specified in b)(2)d.; and

iii. the lubricant comes in contact with a flame.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745- 21-07(M), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745- 21-07(M)(4) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

NOTE: See f)(1)a. and f)(1)b. regarding the record keeping applicability.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors.

For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particulate emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE.

Emission testing will not be required for any new lubricants, if the OC and PE content of the proposed lubricant is less than the 'worst-case' OC-based or water-based lubricant.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) 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 emission incident; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of stack observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing 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. the total duration of any visible emission incident;

c. any corrective actions taken to eliminate the visible emissions;

d. whether the emissions are representative of normal operations; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of fugitive dust observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the water spray tunnel stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) For all the days when the record keeping in d)(3) was required, the permittee shall submit quarterly deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745- 21-07(M), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) For all the days when the record keeping in d)(3) was required, the permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745- 21-07(M), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which the average hourly PM_{10} rate exceeded 6.5 lbs/hr, and the actual average hourly PM_{10} rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit the quarterly deviation (excursion) reports to the Cleveland DAQ in accordance with the Standard Terms and Conditions of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(2), d)(3) and d)(4).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate OC emission factor for the lube material employed cannot exceed the allowable OC limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see f)(2) below).

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:
For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(2), d)(3) and d)(4).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum daily lube usage rate multiplied by the appropriate OC emission factor for the lube material employed cannot exceed the allowable OC limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:
Less than 10 lbs/hr of particulate emissions (PE).

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate PE emission factor for the lube material employed cannot exceed the allowable PE limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:
Visible particulate emissions from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
Compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
Compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit. This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f. Emission Limitation:
PM_{10} emissions shall not exceed 6.5 lbs/hr.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate PE emission factor (or PM_{10} factor if available) for the lube material employed cannot exceed the allowable PM_{10} limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 201 or 201A for PM_{10} of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

* Emissions units P011, P012, P013, P014, P029, P030 and P104 are identical emissions units. The permittee may test one of these emissions units and the results

will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.

The emission testing shall be conducted within 24 months of permit issuance for one of the following identical emissions units P011, P012, P013, P014, P029, P030 and P104.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE, PM_{10}, and the control efficiency requirement for OC as specified in b)(1). Separate emission tests shall be performed while using worst case lubricants that are exposed to temperatures >220 degrees F or flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE, Methods 1 through 4 and 201 or 201A for PM_{10}, and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 9, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

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

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) Emissions are exhausted through a vertical stack at a nominal exit gas flow rate of 38,900 ACFM. P011 and the water spray tunnel stack were installed in 1952.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) If Alcoa chooses to revisit the PM_{10} modeling in the future, it will only be necessary to address the 24-hour PM_{10} NAAQS since the annual PM_{10} standard has been eliminated.

[Authority for term: OAC rule 3745-77-07(C)(1)]

4. P012, Press 8001

Operations, Property and/or Equipment Description:

Building 112A, number 8001 hydraulic press complex for the production of metal forgings, operating at a maximum batch process weight rate of 28,000 lbs/hr of metal.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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 3745-17-07(A)(1)	Visible particulate emissions from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
b.	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
c.	OAC rule 3745-17-08(B)	See b)(2)b.
d.	OAC rule 3745-17-11(B)	See b)(2)a.
e.	OAC rule 3745-21-07(M)(4)	For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit.See b)(2)c.
f.	OAC rule 3745-21-07(M)	For the lubricants that are not exposed to temperatures >220 degrees F or flame, there are no applicable requirements from this rule.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
g.	OAC rule 3745-77-07(B)	PM_{10} emissions shall not exceed 6.5 lbs/hr. See b)(2)e. below.

(2) Additional Terms and Conditions

a. The uncontrolled mass rate of particulate emissions (PE) from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 pounds per hour. Therefore, to ensure that Figure II will not be applicable, the uncontrolled mass rate of PE is limited to less than 10 pounds per hour.

b. The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the captured fugitive dust emissions to the water spray tunnel. 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.

c. The Ohio EPA has determined that OAC rule 3745-21-07(M)(4) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(M)(4) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(M) pursuant to OAC rule 3745-21-07(M)(5)(c) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

d. As specified in OAC rule 3745-21-07(M)(5)(d), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(M):

i. the volatile content of the lubricant consists only of water and liquid organic material; and

ii. the liquid organic material comprises not more than twenty per cent, by volume, of said volatile content.

e. This emission limit is based on air dispersion modeling conducted in August of 2006 to determine and maintain compliance with the 24-hour and annual PM_{10} National Ambient Air Quality Standards (NAAQS).

c) Operational Restrictions

(1) The stack height for this emissions unit shall be maintained at a minimum of 93.5 feet. This stack height restriction is based on air dispersion modeling conducted in August of 2006 to determine and maintain compliance with the 24-hour and annual PM_{10} National Ambient Air Quality Standards (NAAQS).

[Authority for term: OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. the amount of each lubricant employed, in pounds;

c. the PE factor (and PM_{10} factor if available) for each lubricant employed, in pounds of PE (and PM_{10}) per pound of lubricant;

d. the total PE (and PM_{10}) rate for all lubricants employed, in pounds of PE (and PM_{10}) per day, calculated as the sum of (c) x (d) for all lubricants employed;

e. the total number of hours the emissions unit was in operation; and

f. the average hourly PE (and PM_{10}) emission rate calculated as (e)/(f), in lbs/hr (average).

NOTE: See f)(1)c. and f)(1)f. regarding the record keeping applicability.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall maintain the following information for this emissions unit:

a. the company identification for each lubricant employed and documentation as to whether or not:

i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);

ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(M) as specified in b)(2)d.; and

iii. the lubricant comes in contact with a flame.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745- 21-07(M), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745- 21-07(M)(4) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

NOTE: See f)(1)a. and f)(1)b. regarding the record keeping applicability.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors.

For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particulate emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE.

Emission testing will not be required for any new lubricants, if the OC and PE content of the proposed lubricant is less than the 'worst-case' OC-based or water-based lubricant.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) 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 emission incident; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of stack observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing the 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. the total duration of any visible emission incident;

c. any corrective actions taken to eliminate the visible emissions;

d. whether the emissions are representative of normal operations; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of fugitive dust observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the water spray tunnel stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) For all the days when the record keeping in d)(3) was required, the permittee shall submit quarterly deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) For all the days when the record keeping in d)(3) was required, the permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which the average hourly PM_{10} rate exceeded 6.5 lbs/hr, and the actual average hourly PM_{10} rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit the quarterly deviation (excursion) reports to the Cleveland DAQ in accordance with the Standard Terms and Conditions of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(2), d)(3) and d)(4).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate OC emission factor for the lube material employed cannot exceed the allowable OC limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified

Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see f)(2) below).

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:
For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(2), d)(3) and d)(4).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum daily lube usage rate multiplied by the appropriate OC emission factor for the lube material employed cannot exceed the allowable OC limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:
Less than 10 lbs/hr of PE.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate PE emission factor for the lube material employed cannot exceed the allowable PE limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:
Visible particulate emissions from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
Compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
Compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit. This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f. Emission Limitation:
PM_{10} emissions shall not exceed 6.5 lbs/hr.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate PE emission factor (or PM_{10} factor if available) for the lube material employed cannot exceed the allowable PM_{10} limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 201 or 201A for PM_{10} of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

* Emissions units P011, P012, P013, P014, P029, P030 and P104 are identical emissions units. The permittee may test one of these emissions units and the results

will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.

The emission testing shall be conducted within 24 months of permit issuance for one of the following identical emissions units P011, P012, P013, P014, P029, P030 and P104.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE, PM_{10}, and the control efficiency requirement for OC as specified in b)(1). Separate emission tests shall be performed while using worst case lubricants that are exposed to temperatures >220 degrees F or flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE, Methods 1 through 4 and 201 or 201A for PM_{10}, and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 9, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

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

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) Emissions are exhausted through a vertical stack at a nominal exit gas flow rate of 70,000 ACFM. P012 and the water spray tunnel stack were installed in 1953.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) If Alcoa chooses to revisit the PM_{10} modeling in the future, it will only be necessary to address the 24-hour PM_{10} NAAQS since the annual PM_{10} standard has been eliminated.

[Authority for term: OAC rule 3745-77-07(C)(1)]

5. P013, Press 8002/2582

Operations, Property and/or Equipment Description:

Building 112A, number 8002 and number 2582 hydraulic press complex for the production of metal forgings, operating at a maximum batch process weight rate of 28,000 lbs/hr of metal.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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 3745-17-07(A)(1)	Visible particulate emissions from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
b.	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
c.	OAC rule 3745-17-08(B)	See b)(2)b.
d.	OAC rule 3745-17-11(B)	See b)(2)a.
e.	OAC rule 3745-21-07(M)(4)	For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit.See b)(2)c.
f.	OAC rule 3745-21-07(M)	For the lubricants that are not exposed to temperatures >220 degrees F or flame, there are no applicable requirements from this rule.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
g.	OAC rule 3745-77-07(B)	PM_{10} emissions shall not exceed 6.5 lbs/hr. See b)(2)e. below.

(2) Additional Terms and Conditions

a. The uncontrolled mass rate of particulate emissions (PE) from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 pounds per hour. Therefore, to ensure that Figure II will not be applicable, the uncontrolled mass rate of PE is limited to less than 10 pounds per hour.

b. The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the captured fugitive dust emissions to the water spray tunnel. 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.

c. The Ohio EPA has determined that OAC rule 3745-21-07(M)(4) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(M)(4) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(M) pursuant to OAC rule 3745-21-07(M)(5)(c) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

d. As specified in OAC rule 3745-21-07(M)(5)(d), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(M):

i. the volatile content of the lubricant consists only of water and liquid organic material; and

ii. the liquid organic material comprises not more than twenty per cent, by volume, of said volatile content.

e. This emission limit is based on air dispersion modeling conducted in August of 2006 to determine and maintain compliance with the 24-hour and annual PM_{10} National Ambient Air Quality Standards (NAAQS).

c) Operational Restrictions

(1) The stack height for this emissions unit shall be maintained at a minimum of 93.5 feet. This stack height restriction is based on air dispersion modeling conducted in August of 2006 to determine and maintain compliance with the 24-hour and annual PM_{10} National Ambient Air Quality Standards (NAAQS).

[Authority for term: OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. the amount of each lubricant employed, in pounds;

c. the PE factor (and PM_{10} factor if available) for each lubricant employed, in pounds of PE (and PM_{10}) per pound of lubricant;

d. the total PE (and PM_{10}) rate for all lubricants employed, in pounds of PE (and PM_{10}) per day, calculated as the sum of (c) x (d) for all lubricants employed;

e. the total number of hours the emissions unit was in operation; and

f. the average hourly PE (and PM_{10}) emission rate calculated as (e)/(f), in lbs/hr (average).

NOTE: See f)(1)c. and f)(1)f. regarding the record keeping applicability.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall maintain the following information for this emissions unit:

a. the company identification for each lubricant employed and documentation as to whether or not:

i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);

ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(M) as specified in b)(2)d.; and

iii. the lubricant comes in contact with a flame.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), is employed, the permittee shall record

the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745-21-07(M)(4) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

NOTE: See f)(1)a. and f)(1)b. regarding the record keeping applicability.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors.

For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particulate emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. Emission testing will not be required for any new lubricants, if the OC and PE content of the proposed lubricant is less than the 'worst-case' OC-based or water-based lubricant.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) 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 emission incident; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of stack observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing the 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. the total duration of any visible emission incident;

c. any corrective actions taken to eliminate the visible emissions;

d. whether the emissions are representative of normal operations; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of fugitive dust observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the water spray tunnel stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) For all the days when the record keeping in d)(3) was required, the permittee shall submit quarterly deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) For all the days when the record keeping in d)(3) was required, the permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which the average hourly PM_{10} rate exceeded 6.5 lbs/hr, and the actual average hourly PM_{10} rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit the quarterly deviation (excursion) reports to the Cleveland DAQ in accordance with the Standard Terms and Conditions of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(2), d)(3) and d)(4).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate OC emission factor for the lube material employed cannot exceed the allowable OC limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see f)(2) below).

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:
For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(2), d)(3) and d)(4).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum daily lube usage rate multiplied by the appropriate OC emission factor for the lube material employed cannot exceed the allowable OC limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:
Less than 10 lbs/hr of particulate emissions (PE).

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate PE emission factor for the lube material employed cannot exceed the allowable PE limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:
Visible particulate emissions from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
Compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
Compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit. This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f. Emission Limitation:
PM_{10} emissions shall not exceed 6.5 lbs/hr.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate PE emission factor (or PM_{10} factor if available) for the lube material employed cannot exceed the allowable PM_{10} limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 201 or 201A for PM_{10} of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

* Emissions units P011, P012, P013, P014, P029, P030 and P104 are identical emissions units. The permittee may test one of these emissions units and the results

will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.

The emission testing shall be conducted within 24 months of permit issuance for one of the following identical emissions units P011, P012, P013, P014, P029, P030 and P104.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE, PM_{10}, and the control efficiency requirement for OC as specified in b)(1). Separate emission tests shall be performed while using worst case lubricants that are exposed to temperatures >220 degrees F or flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE, Methods 1 through 4 and 201 or 201A for PM_{10}, and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 9, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

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

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) Emissions are exhausted through a vertical stack at a nominal exit gas flow rate of 60,000 ACFM. P013 and the water spray tunnel stack were installed in 1971. To employ reasonably available control measures (RACM), additional hooding and a separate stack were added to the 2582 press.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) If Alcoa chooses to revisit the PM_{10} modeling in the future, it will only be necessary to address the 24-hour PM_{10} NAAQS since the annual PM_{10} standard has been eliminated.

[Authority for term: OAC rule 3745-77-07(C)(1)]

6. P014, Press 3004

Operations, Property and/or Equipment Description:

Building 112A, number 3004 hydraulic press complex for the production of metal forgings, operating at a maximum batch process weight rate of 13,000 lbs/hr of metal.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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 3745-17-07(A)(1)	Visible particulate emissions from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
b.	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
c.	OAC rule 3745-17-08(B)	See b)(2)b.
d.	OAC rule 3745-17-11(B)	See b)(2)a.
e.	OAC rule 3745-21-07(M)(4)	For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit.See b)(2)c.
f.	OAC rule 3745-21-07(M)	For the lubricants that are not exposed to temperatures >220 degrees F or flame, there are no applicable requirements from this rule.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
g.	OAC rule 3745-77-07(B)	PM_{10} emissions shall not exceed 6.5 lbs/hr. See b)(2)e. below.

(2) Additional Terms and Conditions

a. The uncontrolled mass rate of particulate emissions (PE) from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 pounds per hour. Therefore, to ensure that Figure II will not be applicable, the uncontrolled mass rate of PE is limited to less than 10 pounds per hour.

b. The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the captured fugitive dust emissions to the water spray tunnel. 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.

c. The Ohio EPA has determined that OAC rule 3745-21-07(M)(4) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(M)(4) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(M) pursuant to OAC rule 3745-21-07(M)(5)(c) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

d. As specified in OAC rule 3745-21-07(M)(5)(d), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(M):

i. the volatile content of the lubricant consists only of water and liquid organic material; and

ii. the liquid organic material comprises not more than twenty per cent, by volume, of said volatile content.

e. This emission limit is based on air dispersion modeling conducted in August of 2006 to determine and maintain compliance with the 24-hour and annual PM_{10} National Ambient Air Quality Standards (NAAQS).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. the amount of each lubricant employed, in pounds;

c. the PE factor (and PM_{10} factor if available) for each lubricant employed, in pounds of PE (and PM_{10}) per pound of lubricant;

d. the total PE (and PM_{10}) rate for all lubricants employed, in pounds of PE (and PM_{10}) per day, calculated as the sum of (c) x (d) for all lubricants employed;

e. the total number of hours the emissions unit was in operation; and

f. the average hourly PE (and PM_{10}) emission rate calculated as (e)/(f), in lbs/hr (average).

NOTE: See f)(1)c. and f)(1)f. regarding the record keeping applicability.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall maintain the following information for this emissions unit:

a. the company identification for each lubricant employed and documentation as to whether or not:

i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);

ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(M) as specified in b)(2)d.; and

iii. the lubricant comes in contact with a flame.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745-21-07(M)(4) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee

has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

NOTE: See f)(1)a. and f)(1)b. regarding the record keeping applicability.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors.

For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particulate emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. Emission testing will not be required for any new lubricants, if the OC and PE content of the proposed lubricant is less than the 'worst-case' OC-based or water-based lubricant.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) 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 emission incident; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of stack observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing the 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. the total duration of any visible emission incident;

c. any corrective actions taken to eliminate the visible emissions;

d. whether the emissions are representative of normal operations; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of fugitive dust observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the water spray tunnel stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) For all the days when the record keeping in d)(3) was required, the permittee shall submit quarterly deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) For all the days when the record keeping in d)(3) was required, the permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which the average hourly PM_{10} rate exceeded 6.5 lbs/hr, and the actual average hourly PM_{10} rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit the quarterly deviation (excursion) reports to the Cleveland DAQ in accordance with the Standard Terms and Conditions of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(2), d)(3) and d)(4).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate OC emission factor for the lube material employed cannot exceed the allowable OC limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see f)(2) below).

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:
For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(2), d)(3) and d)(4).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum daily lube usage rate multiplied by the appropriate OC emission factor for the lube material employed cannot exceed the allowable OC limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:
Less than 10 lbs/hr of particulate emissions (PE).

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate PE emission factor for the lube material employed cannot exceed the allowable PE limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:
Visible particulate emissions from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
Compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
Compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit. This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f. Emission Limitation:

PM_{10} emissions shall not exceed 6.5 lbs/hr.

Applicable Compliance Method:

Compliance shall be determined pursuant to the monitoring and record keeping in d)(1).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate PE emission factor (or PM_{10} factor if available) for the lube material employed cannot exceed the allowable PM_{10} limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 201 or 201A for PM_{10} of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*Emissions units P011, P012, P013, P014, P029, P030 and P104 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.

The emission testing shall be conducted within 24 months of permit issuance for one of the following identical emissions units P011, P012, P013, P014, P029, P030 and P104.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE, PM_{10}, and the control efficiency requirement for OC as specified in b)(1). Separate emission tests shall be performed while using worst case lubricants that are exposed to temperatures >220 degrees F or flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE, Methods 1 through 4 and 201 or 201A for PM_{10}, and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 9, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

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

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) Emissions are exhausted through a vertical stack at a nominal exit gas flow rate of 36,000 ACFM. P014 and the water spray tunnel stack were installed in 1969.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) If Alcoa chooses to revisit the PM_{10} modeling in the future, it will only be necessary to address the 24-hour PM_{10} NAAQS since the annual PM_{10} standard has been eliminated.

[Authority for term: OAC rule 3745-77-07(C)(1)]

7. P029, Press 35000

Operations, Property and/or Equipment Description:

Building 206, number 35000 hydraulic press complex for the production of metal forgings, operating at a maximum batch process weight rate of 50,000 lbs/hr of metal.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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 3745-17-07(A)(1)	Visible particulate emissions from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
b.	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
c.	OAC rule 3745-17-08(B)	See b)(2)b.
d.	OAC rule 3745-17-11(B)	See b)(2)a.
e.	OAC rule 3745-21-07(M)(4)	For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit.See b)(2)c.
f.	OAC rule 3745-21-07(M)	For the lubricants that are not exposed to temperatures >220 degrees F or flame, there are no applicable requirements from this rule.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
g.	OAC rule 3745-77-07(B)	PM_{10} emissions shall not exceed 6.5 lbs/hr. See b)(2)e. below.

(2) Additional Terms and Conditions

a. The uncontrolled mass rate of particulate emissions (PE) from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 pounds per hour. Therefore, to ensure that Figure II will not be applicable, the uncontrolled mass rate of PE is limited to less than 10 pounds per hour.

b. The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the captured fugitive dust emissions to the water spray tunnel. 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.

c. The Ohio EPA has determined that OAC rule 3745-21-07(M)(4) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(M)(4) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(M) pursuant to OAC rule 3745-21-07(M)(5)(c) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

d. As specified in OAC rule 3745- 21-07(M)(5)(d), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(M):

i. the volatile content of the lubricant consists only of water and liquid organic material; and

ii. the liquid organic material comprises not more than twenty per cent, by volume, of said volatile content.

e. This emission limit is based on air dispersion modeling conducted in August of 2006 to determine and maintain compliance with the 24-hour and annual PM_{10} National Ambient Air Quality Standards (NAAQS).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. the amount of each lubricant employed, in pounds;

c. the PE factor (and PM_{10} factor if available) for each lubricant employed, in pounds of PE (and PM_{10}) per pound of lubricant;

d. the total PE (and PM_{10}) rate for all lubricants employed, in pounds of PE (and PM_{10}) per day, calculated as the sum of (c) x (d) for all lubricants employed;

e. the total number of hours the emissions unit was in operation; and

f. the average hourly PE (and PM_{10}) emission rate calculated as (e)/(f), in lbs/hr (average).

NOTE: See f)(1)c. and f)(1)f. regarding the record keeping applicability.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall maintain the following information for this emissions unit:

a. the company identification for each lubricant employed and documentation as to whether or not:

i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);

ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(M) as specified in b)(2)d.; and

iii. the lubricant comes in contact with a flame.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745-21-07(M)(4) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee

has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

NOTE: See f)(1)a. and f)(1)b. regarding the record keeping applicability.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors.

For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particulate emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. Emission testing will not be required for any new lubricants, if the OC and PE content of the proposed lubricant is less than the 'worst-case' OC-based or water-based lubricant.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) 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 emission incident; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of stack observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing 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. the total duration of any visible emission incident;

c. any corrective actions taken to eliminate the visible emissions;

d. whether the emissions are representative of normal operations; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of fugitive dust observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the water spray

tunnel stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) For all the days when the record keeping in d)(3) was required, the permittee shall submit quarterly deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745- 21-07(M), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) For all the days when the record keeping in d)(3) was required, the permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745- 21-07(M), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which the average hourly PM_{10} rate exceeded 6.5 lbs/hr, and the actual average hourly PM_{10} rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit the quarterly deviation (excursion) reports to the Cleveland DAQ in accordance with the Standard Terms and Conditions of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the

Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(2), d)(3) and d)(4).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate OC emission factor for the lube material employed cannot exceed the allowable OC limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see f)(2) below).

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:
For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(2), d)(3) and d)(4).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum daily lube usage rate multiplied by the appropriate OC emission factor for the lube material employed cannot exceed the allowable OC limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:
Less than 10 lbs/hr of particulate emissions (PE).

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate PE emission factor for the lube material employed cannot exceed the allowable PE limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:
Visible particulate emissions from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
Compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
Compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit. This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f. Emission Limitation:

PM_{10} emissions shall not exceed 6.5 lbs/hr.

Applicable Compliance Method:

Compliance shall be determined pursuant to the monitoring and record keeping in d)(1).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate PE emission factor (or PM_{10} factor if available) for the lube material employed cannot exceed the allowable PM_{10} limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 201 or 201A for PM_{10} of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

* Emissions units P011, P012, P013, P014, P029, P030 and P104 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.

The emission testing shall be conducted within 24 months of permit issuance for one of the following identical emissions units P011, P012, P013, P014, P029, P030 and P104.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE, PM_{10}, and the control efficiency requirement for OC as specified in b)(1). Separate emission tests shall be performed while using worst case lubricants that are exposed to temperatures >220 degrees F or flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE, Methods 1 through 4 and 201 or 201A for PM_{10}, and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 9, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

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

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) Emissions are exhausted through a vertical stack at a nominal exit gas flow rate of 50,800 ACFM. P029 and the water spray tunnel stack were installed in 1955.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and

other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) If Alcoa chooses to revisit the PM_{10} modeling in the future, it will only be necessary to address the 24-hour PM_{10} NAAQS since the annual PM_{10} standard has been eliminated.

[Authority for term: OAC rule 3745-77-07(C)(1)]

8. P030, Press 50000

Operations, Property and/or Equipment Description:

Building 206, number 50000 hydraulic press complex for the production of metal forgings, operating at a maximum batch process weight rate of 50,000 lbs/hr of metal

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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 3745-17-07(A)(1)	Visible particulate emissions from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
b.	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
c.	OAC rule 3745-17-08(B)	See b)(2)b.
d.	OAC rule 3745-17-11(B)	See b)(2)a.
e.	OAC rule 3745-21-07(M)(4)	For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit.See b)(2)c.
f.	OAC rule 3745-21-07(M)	For the lubricants that are not exposed to temperatures >220 degrees F or flame, there are no applicable requirements from this rule.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
g.	OAC rule 3745-77-07(B)	PM_{10} emissions shall not exceed 6.5 lbs/hr. See b)(2)e. below.

(2) Additional Terms and Conditions

a. The uncontrolled mass rate of particulate emissions (PE) from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 pounds per hour. Therefore, to ensure that Figure II will not be applicable, the uncontrolled mass rate of PE is limited to less than 10 pounds per hour.

b. The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the captured fugitive dust emissions to the water spray tunnel. 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.

c. The Ohio EPA has determined that OAC rule 3745-21-07(M)(4) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(M)(4) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(M) pursuant to OAC rule 3745-21-07(M)(5)(c) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

d. As specified in OAC rule 3745-21-07(M)(5)(d), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745-21-07(M):

i. the volatile content of the lubricant consists only of water and liquid organic material; and

ii. the liquid organic material comprises not more than twenty per cent, by volume, of said volatile content.

e. This emission limit is based on air dispersion modeling conducted in August of 2006 to determine and maintain compliance with the 24-hour and annual PM_{10} National Ambient Air Quality Standards (NAAQS).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. the amount of each lubricant employed, in pounds;

c. the PE factor (and PM_{10} factor if available) for each lubricant employed, in pounds of PE (and PM_{10}) per pound of lubricant;

d. the total PE (and PM_{10}) rate for all lubricants employed, in pounds of PE (and PM_{10}) per day, calculated as the sum of (c) x (d) for all lubricants employed;

e. the total number of hours the emissions unit was in operation; and

f. the average hourly PE (and PM_{10}) emission rate calculated as (e)/(f), in lbs/hr (average).

NOTE: See f)(1)c. and f)(1)f. regarding the record keeping applicability.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall maintain the following information for this emissions unit:

a. the company identification for each lubricant employed and documentation as to whether or not:

i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);

ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(M) as specified in b)(2)d.; and

iii. the lubricant comes in contact with a flame.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745-21-07(M)(4) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee

has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

NOTE: See f)(1)a. and f)(1)b. regarding the record keeping applicability.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors.

For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particulate emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. Emission testing will not be required for any new lubricants, if the OC and PE content of the proposed lubricant is less than the 'worst-case' OC-based or water-based lubricant.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) 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 emission incident; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of stack observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing 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. the total duration of any visible emission incident;

c. any corrective actions taken to eliminate the visible emissions;

d. whether the emissions are representative of normal operations; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of fugitive dust observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the water spray tunnel stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) For all the days when the record keeping in d)(3) was required, the permittee shall submit quarterly deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) For all the days when the record keeping in d)(3) was required, the permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which the average hourly PM_{10} rate exceeded 6.5 lbs/hr, and the actual average hourly PM_{10} rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit the quarterly deviation (excursion) reports to the Cleveland DAQ in accordance with the Standard Terms and Conditions of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(2), d)(3) and d)(4).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate OC emission factor for the lube material employed cannot exceed the allowable OC limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see f)(2) below).

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:
For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(2), d)(3) and d)(4).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum daily lube usage rate multiplied by the appropriate OC emission factor for the lube material employed cannot exceed the allowable OC limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:
Less than 10 lbs/hr of particulate emissions (PE).

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate PE emission factor for the lube material employed cannot exceed the allowable PE limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:
Visible particulate emissions from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
Compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
Compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit. This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f. Emission Limitation:

PM_{10} emissions shall not exceed 6.5 lbs/hr.

Applicable Compliance Method:

Compliance shall be determined pursuant to the monitoring and record keeping in d)(1).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate PE emission factor (or PM_{10} factor if available) for the lube material employed cannot exceed the allowable PM_{10} limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 201 or 201A for PM_{10} of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

* Emissions units P011, P012, P013, P014, P029, P030 and P104 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.

The emission testing shall be conducted within 24 months of permit issuance for one of the following identical emissions units P011, P012, P013, P014, P029, P030 and P104.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE, PM_{10}, and the control efficiency requirement for OC as specified in b)(1). Separate emission tests shall be performed while using worst case lubricants that are exposed to temperatures >220 degrees F or flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE, Methods 1 through 4 and 201 or 201A for PM_{10}, and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 9, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

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

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) Emissions are exhausted through a vertical stack at a nominal exit gas flow rate of 69,319 ACFM. P030 and the water spray tunnel stack were installed in 1955.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) If Alcoa chooses to revisit the PM_{10} modeling in the future, it will only be necessary to address the 24-hour PM_{10} NAAQS since the annual PM_{10} standard has been eliminated.

[Authority for term: OAC rule 3745-77-07(C)(1)]

9. P033, Titanium Etch System - Bldg 206

Operations, Property and/or Equipment Description:

Two (2) titanium etch tanks in series consisting of hydrofluoric acid etching and rinsing process. System maximum of 4,615 lbs/hr of titanium forgings.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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 3745-17-07(A)(1)	Visible particulate emissions from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
b.	OAC rule 3745-17-11(B)	Particulate emissions (PE) shall not exceed 0.551 lb/hr. PE includes, but is not limited to, acid mist.

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) None.

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 emission incident; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of stack observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the water spray tunnel stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
Visible particulate emissions from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
Compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:
Particulate emissions (PE) shall not exceed 0.551 lb/hr.

PE includes, but is not limited to, acid mist.

Applicable Compliance Method:

Compliance with the lb/hr emission limitation was demonstrated through performance testing conducted in 1991. The average emission rate was 0.532 lb/hr of particulate emissions (as acid mist).

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with USEPA Method 26 in 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) P033 was installed in 1968.

P033 is a stack source.

[Authority for term: OAC rule 3745-77-07(C)(1)]

10. P046, Furnace HT - #1 Swindell

Operations, Property and/or Equipment Description:

Building 206, Swindell, electric heat treat furnace (number 1), operating at a maximum process weight rate of 7,500 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger (Particulate emissions (PE) are exhausted through a vertical stack.).

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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 3745-17-07(A)(1)	Visible particulate emissions from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
b.	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
c.	OAC rule 3745-17-08(B)	See b)(2)a.
d.	OAC rule 3745-17-11(B) Table I	Particulate emissions (PE) shall not exceed 0.551 lb/hr.

(2) Additional Terms and Conditions

a. The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on load cars or trays to introduce the hydrogen scavenger into the furnace or the oven.

c) Operational Restrictions

(1) The permittee shall only use electrical energy in this emissions unit.

[Authority for term: OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain records for each day during which a heat source other than electric heat was employed in this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall collect, record and maintain the following information each month this emissions unit is in operation:

a. the scavenger usage for this emissions unit, in lbs;

b. the PE generated by this emissions unit, i.e., (a) x 0.175 lb of PE/lb scavenger*, in lbs of PE;

c. the operating hours of this emissions unit ; and

d. the actual average hourly PE rate for this emissions unit, i.e., (b)/(c), in lbs of PE/hr.

NOTE: See f)(1)c. regarding the record keeping applicability.

*This emission factor is based on prior emission testing; may be updated based on additional emission tests performed in accordance with f)(1) below.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing 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. the total duration of any visible emission incident;

c. any corrective actions taken to eliminate the visible emissions;

d. whether the emissions are representative of normal operations; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of fugitive dust observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) 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 emission incident; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of stack observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (or excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each month during which the actual average hourly PE rate in lbs/hr exceeded the limit in b)(1).

The quarterly deviation (excursion) reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. <u>Emission Limitation</u>:
Visible particulate emissions from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
Compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
Compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit. This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:
Particulate emissions (PE) shall not exceed 0.551 lb/hr.

Applicable Compliance Method:
Compliance may be determined pursuant to the monitoring and record keeping in d).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly hydrogen scavenger (AFB) material usage rate multiplied by the appropriate PE emission factor for the AFB material employed cannot exceed the allowable PE limitation.

If compliance cannot be demonstrated through this calculation method using the maximum AFB material usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual AFB material usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) P046 was installed in June 1955.

P046 is both a stack source and a fugitive dust source.

[Authority for term: OAC rule 3745-77-07(C)(1)]

11. P054, Furnace HT - #5 Despatch (30000)

Operations, Property and/or Equipment Description:

Building 206, 8.20 mmBtu/hr, indirect heat, natural gas-fired heat treat Despatch furnace (number 5), operating at a maximum process weight rate of 7,500 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger (Particulate emissions (PE) are vented through a stack.).

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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 3745-17-07(A)(1)	Visible particulate emissions from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
b.	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
c.	OAC rule 3745-17-08(B)	See b)(2)a.
d.	OAC rule 3745-17-10(B)(1)	Particulate emissions (PE) from the gas burner flue gas exhaust shall not exceed 0.020 lb/mmBtu of actual heat input.
e.	OAC rule 3745-17-11(B) Table I	Particulate emissions (PE) shall not exceed 0.551 lb/hr.

(2) Additional Terms and Conditions

a. The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and

placing bags on load cars or trays to introduce the hydrogen scavenger into the furnace or the oven.

b. Because this emissions unit is fired only with natural gas, there is no applicable SO_2 emission limitation from Chapter 3745-18.

c) Operational Restrictions

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

[Authority for term: OAC rule 3745-77-07(A)(1)]

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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall collect, record and maintain the following information each month this emissions unit is in operation:

a. the scavenger usage for this emissions unit, in lbs;

b. the PE generated by this emissions unit, i.e., (a) x 0.175 lb of PE/lb scavenger*, in lbs of PE;

c. the operating hours of this emissions unit ; and

d. the actual average hourly PE rate for this emissions unit, i.e., (b)/(c), in lbs of PE/hr.

NOTE: See f)(1)d. regarding the record keeping applicability.

*This emission factor is based on prior emission testing; may be updated based on additional emission tests performed in accordance with f)(1).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing 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. the total duration of any visible emission incident;

c. any corrective actions taken to eliminate the visible emissions;

d. whether the emissions are representative of normal operations; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of fugitive dust observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) 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 emission incident; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of stack observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit quarterly deviation (or excursion) reports to the Cleveland DAQ that identify each month during which the actual average hourly PE rate in lbs/hr exceeded the limit in b)(1).

The quarterly deviation (excursion) reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
Visible particulate emissions from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
Compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
Compliance shall be determined through visible emissions observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit. This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:
Particulate emissions (PE) from the gas burner flue gas exhaust shall not exceed 0.020 lb/mmBtu of actual heat input.

Applicable Compliance Method:
When burning natural gas, compliance with this emission limitation may be demonstrated by multiplying the emission factor from the USEPA reference document AP-42, Fifth Edition or the most recent edition of AP-42, Compilation of Air Pollutant Emission Factors, Section 1.4, Table 1.4-2 (7/98) for filterable particulates in natural gas combustion (1.9 lbs of PE/mmcu. ft.) and dividing by the gross heating value of natural gas (1,000 Btu/cu. ft.).

Actual PE, lbs/mmBtu = (1.9 lbs of PE/mm cu. ft.)/(1,000 Btu/cu. ft.) = 0.0019 lb of PE/mmBtu

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with the appropriate methods found in 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:
Particulate emissions (PE) shall not exceed 0.551 lb/hr.

Applicable Compliance Method:
Compliance may be determined pursuant to the monitoring and record keeping in d).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly hydrogen scavenger (AFB) material usage rate multiplied by the appropriate PE emission factor for the AFB material employed cannot exceed the allowable PE limitation.

If compliance cannot be demonstrated through this calculation method using the maximum AFB material usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual AFB material usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) P054 and a stack were installed in 1967.

P054 is both a fugitive dust source and a stack source.

[Authority for term: OAC rule 3745-77-07(C)(1)]

12. P055, Furnace #15 Soaker

Operations, Property and/or Equipment Description:

Building 206, 8.00 mmBtu/hr, indirect heat, natural gas-fired ingot soaking furnace (number 15), operating at a maximum process weight rate of 25,000 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger (Particulate emissions (PE) are vented through a baghouse filter dust collector.).

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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 3745-17-07(A)(1)	Visible particulate emissions from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
b.	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
c.	OAC rule 3745-17-08(B)	See b)(2)a.
d.	OAC rule 3745-17-10(B)(1)	Particulate emissions (PE) from the gas burner flue gas exhaust shall not exceed 0.020 lb/mmBtu of actual heat input.
e.	OAC rule 3745-17-11(B)	Particulate emissions (PE) shall not exceed 0.551 lb/hr (based upon Table I) from the control device.

(2) Additional Terms and Conditions

a. The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and

placing bags on load cars or trays to introduce the hydrogen scavenger into the furnace or the oven.

b. Because this emissions unit is fired only with natural gas, there is no applicable SO_2 emission limitation from Chapter 3745-18.

c. The emissions from this emissions unit shall be vented to the cartridge filter at all times the emissions unit is in operation.

c) Operational Restrictions

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

[Authority for term: OAC rule 3745-77-07(A)(1)]

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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall collect, record and maintain the following information each month this emissions unit is in operation:

a. the scavenger usage for this emissions unit, in lbs;

b. the PE generated by this emissions unit, i.e., (a) x (0.175 lb of PE/lb scavenger*) x (1 - fractional control efficiency for control device), in lbs of PE;

c. the operating hours of this emissions unit; and

d. the actual average hourly PE rate for this emissions unit, i.e., (b)/(c), in lbs of PE/hr.

NOTE: See f)(1)d. regarding the record keeping applicability.

*This emission factor is based on prior emission testing; may be updated based on additional emission tests performed in accordance with f)(2) below.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing 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. the total duration of any visible emission incident;

c. any corrective actions taken to eliminate the visible emissions;

d. whether the emissions are representative of normal operations; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of fugitive dust observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) 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 emission incident; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of stack observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the cartridge filter is between 2.0 to 14.0 inches of water.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) The permittee shall properly operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the cartridge filter when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the cartridge filter on a daily basis when the emissions unit is operating. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

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

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

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

e. the findings and recommendations.

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

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

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

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

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

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

This range or limit on the pressure drop across the cartridge filter is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Cleveland Division of Air Quality (Cleveland DAQ). 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 a minor permit modification.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to

eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify the following:

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

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

c. each incident of deviation described in e)(4)a. (above) where a prompt investigation was not conducted;

d. each incident of deviation described in e)(4)a. where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in e)(4)a. where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall submit quarterly deviation (or excursion) reports to the Cleveland DAQ that identify each month during which the average hourly PE rate in lbs/hr exceeded the limit in b)(1).

The quarterly deviation (excursion) reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. <u>Emission Limitation</u>:
Visible particulate emissions from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

<u>Applicable Compliance Method</u>:
Compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). This

compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
Compliance shall be determined through visible emissions observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit. This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:
Particulate emissions (PE) from the gas burner flue gas exhaust shall not exceed 0.020 lb/mmBtu of actual heat input.

Applicable Compliance Method:
When burning natural gas, compliance with this emission limitation may be demonstrated by multiplying the emission factor from the USEPA reference document AP-42, Fifth Edition or the most recent edition of AP-42, Compilation of Air Pollutant Emission Factors, Section 1.4, Table 1.4-2 (7/98) for filterable particulates in natural gas combustion (1.9 lbs of PE/mmcu. ft.) and dividing by the gross heating value of natural gas (1,000 Btu/cu. ft.).

Actual PE, lbs/mmBtu = (1.9 lbs of PE/mm cu. ft.)/(1,000 Btu/cu. ft.) = 0.0019 lb of PE/mmBtu

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with the appropriate methods found in 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:
Particulate emissions (PE) shall not exceed 0.551 lb/hr.

Applicable Compliance Method:
Compliance may be determined pursuant to the monitoring and record keeping in d). A PE factor in lb PE/lb hydrogen scavenger was developed by the permittee from stack test emission data. Other emission factors that are generated from stack test emission data may be used with prior approval of the Cleveland DAQ.

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly hydrogen scavenger (AFB) material usage rate multiplied by the appropriate PE emission factor for the AFB material employed cannot exceed the allowable PE limitation.

If compliance cannot be demonstrated through this calculation method using the maximum AFB material usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual AFB material usage rates.

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with USEPA Methods 1 through 5 in 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

* Emissions units P055, P102, P177 and P402 are identical emissions units. The permittee may stack test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.

The emission testing shall be conducted within 12 months of permit issuance for one of the following identical emissions units P055, P102, P177 and P402.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulate emissions in b)(1) for the control device. The secondary purpose of this testing is to verify the current particulate emission factors or establish new emission factors to be used to demonstrate compliance with the emission limits.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate(s): Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE. Visible emission readings, using USEPA Method 9, shall be performed during each test run for the fugitive dust emissions and the emissions from the internal chamber exhaust.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval

prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) P055 and a stack were installed in 1955. The cartridge dust collector was installed in 1977. The cartridge dust collector was replaced with a baghouse in 1996.

P055 is both a fugitive dust source and a stack source.

[Authority for term: OAC rule 3745-77-07(C)(1)]

13. P087, Furnace T-7 B206

Operations, Property and/or Equipment Description:

Building 206, 18.64 mmBtu/hr, direct heat, natural gas-fired titanium reheat furnaces (number T-7), not using hydrogen scavenger (Particulate emissions (PE) are exhausted through a vertical stack.).

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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) (PTI P0115808 issued final April 28, 2014)	The requirements of this rule are equivalent to the requirements of OAC rules 3745-17-11(B) and 3745-17-07(A)(1).
b.	OAC rule 3745-17-07(A)(1)	See b)(2)b.
c.	OAC rule 3745-17-11(B)	See b)(2)a.
d.	OAC rule 3745-18-06(E)	See b)(2)c.
e.	OAC rule 3745-77-07(B)	PM_{10} emissions shall not exceed 0.3728 lb/hr. See b)(2)d. below.

(2) Additional Terms and Conditions

a. The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight, as defined in OAC rule 3745-17-01(B)(14), is equal to zero.

b. This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.

c. The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

d. This emission limit is based on air dispersion modeling conducted in August of 2006 to determine and maintain compliance with the 24-hour and annual PM_{10} National Ambient Air Quality Standards (NAAQS).

c) Operational Restrictions

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

[Authority for term: OAC rule 3745-77-07(A)(1)]

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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
PM_{10} emissions shall not exceed 0.3728 lb/hr.

Applicable Compliance Method:
Compliance may be determined by dividing the AP-42 emission factor of 1.9 lb PM_{10}/mmcf by 1,020 Btu/cf and then multiplying by the maximum capacity of this emissions unit (18.64 mmBtu/hr). The AP-42 emission factor is from Table 1.4-2 version dated July 1998.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 201 for PM_{10} of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10).

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) P087 was installed in May 1974 and is a stack source.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) If Alcoa chooses to revisit the PM_{10} modeling in the future, it will only be necessary to address the 24-hour PM_{10} NAAQS since the annual PM_{10} standard has been eliminated.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) Superseded permit PTI #13-016 issued April 3, 1974 (Issued under Chapter EP-30).

[Authority for term: OAC rule 3745-77-07(C)(1)]

14. P100, Furnace T-8 Anneal B206

Operations, Property and/or Equipment Description:

Building 206, 22.20 mmBtu/hr, direct heat, natural gas-fired titanium annealing furnace (number T-8), not using hydrogen scavenger and operating at a maximum process weight rate of 1,390 lbs/hr of metal (Particulate emissions (PE) are exhausted through a vertical stack.).

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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) (PTI P0115808 issued final April 28, 2014)	The requirements of this rule are equivalent to the requirements of OAC rules 3745-17-11(B) and 3745-17-07(A)(1).
b.	OAC rule 3745-17-07(A)(1)	See b)(2)b.
c.	OAC rule 3745-17-11(B)	See b)(2)a.
d.	OAC rule 3745-18-06(E)	See b)(2)c.
e.	OAC rule 3745-31-05(F)	PM_{10} emissions shall not exceed 0.05 lbs/hr. See b)(2)d. below.

(2) Additional Terms and Conditions

a. The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight, as defined in OAC rule 3745-17-01(B)(14), is equal to zero.

b. This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.

c. The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

d. This emission limit is based on air dispersion modeling conducted in August of 2006 to determine and maintain compliance with the 24-hour and annual PM_{10} National Ambient Air Quality Standards (NAAQS).

c) Operational Restrictions

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

[Authority for term: OAC rule 3745-77-07(A)(1)]

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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
PM_{10} emissions shall not exceed 0.05 lbs/hr.

Applicable Compliance Method:
Compliance may be determined by dividing the AP-42 emission factor of 1.9 lb PM_{10}/mmcf by 1,020 Btu/cf and then multiplying by the maximum capacity of this emissions unit (22.20 mmBtu/hr). The AP-42 emission factor is from Table 1.4-2 version dated July 1998.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 201 for PM_{10} of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10).

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) P100 was installed in 1978 and is a stack source.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) If Alcoa chooses to revisit the PM_{10} modeling in the future, it will only be necessary to address the 24-hour PM_{10} NAAQS since the annual PM_{10} standard has been eliminated.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) Superseded permit PTI #13-425 issued May 16, 1978.

[Authority for term: OAC rule 3745-77-07(C)(1)]

15. P102, Furnace #12 Soaker

Operations, Property and/or Equipment Description:

Building 150, 9.00 mmBtu/hr, indirect heat, natural gas-fired soaker furnace (number 12), operating at a maximum process weight rate of 44,250 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger (Particulate emissions (PE) are controlled by a reverse air baghouse.)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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) (PTI #13-763 issued May 14, 1981)	The requirements of this rule are equivalent to the requirements of OAC rules 3745-17-10(B)(1), 3745-17-07(A)(1), 3745-17-08(B), 3745-17-11(B) Table I, 3745-17-07(B)(1) and 3745-18-06(E).
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the reverse air baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
c.	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
d.	OAC rule 3745-17-08(B)	See b)(2)a.
e.	OAC rule 3745-17-10(B)(1)	Particulate emissions (PE) from the burner flue gas exhaust shall not exceed 0.020 lb/mmBtu of actual heat input.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
f.	OAC rule 3745-17-11(B)	Particulate emissions (PE) from the exhaust stack of the reverse air baghouse controlling emissions generated by the internal furnace chamber shall not exceed 0.551 lb/hr (based upon Table I).

(2) Additional Terms and Conditions

a. The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

b. Because this emissions unit is fired only with natural gas, there is no applicable SO_2 emission limitation from Chapter 3745-18.

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

c) Operational Restrictions

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

[Authority for term: OAC rule 3745-77-07(A)(1)]

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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall collect, record and maintain the following information each month this emissions unit is in operation:

a. the scavenger usage for this emissions unit, in lbs;

b. the PE generated by this emissions unit, i.e., (a) x (0.175 lb of PE/lb scavenger*) x (1 - fractional control efficiency for control device), in lbs of PE;

c. the operating hours of this emissions unit; and

d. the actual average hourly PE rate for this emissions unit, i.e., (b)/(c), in lbs of PE/hr.

NOTE: See f)(1)d. regarding the record keeping applicability.

*This emission factor is based on prior emission testing; may be updated based on additional emission tests performed in accordance with f)(2) below.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing 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. the total duration of any visible emission incident;

c. any corrective actions taken to eliminate the visible emissions;

d. whether the emissions are representative of normal operations; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of fugitive dust observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) 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 emission incident; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of stack observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 2.0 to 14.0 inches of water.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) The permittee shall properly operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis when the emissions unit is operating. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer’s recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

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

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

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

e. the findings and recommendations.

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

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

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

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

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

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

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Cleveland Division of Air Quality (Cleveland DAQ). 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 a minor permit modification.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit quarterly deviation (or excursion) reports to the Cleveland DAQ that identify each month during which the average hourly PE rate in lbs/hr exceeded the limit in b)(1).

The quarterly deviation (excursion) reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify the following:

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

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

c. each incident of deviation described in e)(5)a. (above) where a prompt investigation was not conducted;

d. each incident of deviation described in e)(5)a. where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in e)(5)a. where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
Visible particulate emissions from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
Compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). This compliance method shall be used whenever a compliance determination is warranted.

b. Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
Compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit. This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:
Particulate emissions (PE) shall not exceed 0.020 lb/mmBtu of actual heat input.

Applicable Compliance Method:
When burning natural gas, compliance with this emission limitation may be demonstrated by multiplying the emission factor from the USEPA reference document AP-42, Fifth Edition or the most recent edition of AP-42, Compilation of Air Pollutant Emission Factors, Section 1.4, Table 1.4-2 (7/98) for filterable particulates in natural gas combustion (1.9 lbs of PE/mmcu. ft.) and dividing by the gross heating value of natural gas (1,000 Btu/cu. ft.).

Actual PE, lbs/mmBtu = (1.9 lbs of PE/mm cu. ft.)/(1,000 Btu/cu. ft.) = 0.0019 lb of PE/mmBtu

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with USEPA Methods 1 through 5 in 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:
Particulate emissions (PE) from the exhaust stack of the reverse air baghouse controlling emissions generated by the internal furnace chamber shall not exceed 0.551 lb/hr.

Applicable Compliance Method:
Compliance may be determined pursuant to the monitoring and record keeping in d). A PE factor in lb PE/lb hydrogen scavenger was developed by the permittee from stack test emission data. Other emission factors that are generated from stack test emission data may be used with prior approval of the Cleveland DAQ.

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly hydrogen scavenger (AFB) material usage rate multiplied by the appropriate PE emission factor for the AFB material employed cannot exceed the allowable PE limitation.

If compliance cannot be demonstrated through this calculation method using the maximum AFB material usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual AFB material usage rates.

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with USEPA Methods 1 through 5 in 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P055, P102, P177 and P402 are identical emissions units. The permittee may stack test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted within 12 months of permit issuance for one of the following identical emissions units P055, P102, P177 and P402.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulate emissions in b)(1) for the control device. The secondary purpose of this testing is to verify the current particulate emission factors or establish new emission factors to be used to demonstrate compliance with the emission limits.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate(s): Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE. Visible emission readings, using USEPA Method 9, shall be performed during each test run for the fugitive dust emissions and the emissions from the internal chamber exhaust.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

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

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) P102 was installed in 1963. The reverse air baghouse was installed in 1980. The reverse air baghouse was replaced with another baghouse in 1996 which share controls with emissions unit P402.

P102 is both a fugitive source and stack source.

[Authority for term: OAC rule 3745-77-07(C)(1)]

16. P104, Press 8003/2583

Operations, Property and/or Equipment Description:

Building 112A, number 8003/2583, hydraulic finishing press complex consisting of 8,000 ton and a 2,500 ton hydraulic forming press for the production of metal forgings, operating at a maximum batch process weight rate of 18,000 lbs/hr of metal.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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) (P0115808 issued final April 28, 2014)	Particulate emissions (PE)/PM_{10} emissions shall not exceed: 0.009 gr/dscf; 6.50 lbs/hr based off a maximum air flow of 84,300 scfm; and 28.47 tons/year. Fugitive PE/PM_{10} emissions shall not exceed 1.42 tons/year. For lubricants that are exposed to flame, the organic compound (OC) emissions shall not exceed 3.43 lbs/hr and 14.98 tons/year. For lubricants that are exposed to flame, the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit. For lubricants that are not exposed to temperatures >220 degrees F or flame, the OC emissions shall not exceed 7.30 tons/year. See b)(2)d. The requirements of this rule are

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		equivalent to the requirements of OAC rules 3745-17-11(B), 3745-17-07(A)(1), 3745-17-07(B)(1), 3745-17-08(B) and 3745-21-07(M)(4).
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
c.	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
d.	OAC rule 3745-17-08(B)	See b)(2)a.
e.	OAC rule 3745-17-11(B)	The particulate emission limitation specified by this rule is less stringent than the particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
f.	OAC rule 3745-21-07(M)(4)	For the lubricants that are exposed to temperatures >220 degrees F but no flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day. For the lubricants that are exposed to flame, the control requirement specified by this rule is equivalent to the control requirement established pursuant to OAC rule 3745-31-05(A)(3). See b)(2)b.
g.	OAC rule 3745-21-07(M)	For the lubricants that are not exposed to temperatures >220 degrees F or flame, there are no applicable requirements from this rule.

(2) Additional Terms and Conditions

a. The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, vent and control the captured particulate

emissions. The collection efficiency shall be sufficient to minimize or eliminate visible particulate emissions at the point(s) of capture to the extent possible with good engineering design.

b. The Ohio EPA has determined that OAC rule 3745-21-07(M)(4) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(M)(4) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(M) pursuant to OAC rule 3745-21-07(M)(5)(c) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

c. As specified in OAC rule 3745- 21-07(M)(5)(d), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745- 21-07(M):

i. the volatile content of the lubricant consists only of water and liquid organic material; and

ii. the liquid organic material comprises not more than twenty per cent, by volume, of said volatile content.

d. For purposes of satisfying the "Best Available Technology" requirements under OAC rule 3745-31-05(A)(3), the permittee shall employ "emissions reducing lubricants" in this emissions unit. "Emissions reducing lubricants" shall be defined as producing particulate emissions less than 0.009 gr/dscf and achieving an overall reduction of 85% by weight of OC emissions generated by this emissions unit.

c) Operational Restrictions

(1) The stack height for this emissions unit shall be maintained at a minimum of 70 feet. This stack height restriction is based on air dispersion modeling conducted in August of 2006 to determine and maintain compliance with the 24-hour and annual PM_{10} National Ambient Air Quality Standards (NAAQS).

[Authority for term: OAC rule 3745-77-07(A)(1)]

(2) The stack diameter for this emissions unit shall be maintained at a minimum of 4 feet. This stack diameter restriction is based on air dispersion modeling conducted in August of 2006 to determine and maintain compliance with the 24-hour and annual PM_{10} National Ambient Air Quality Standards (NAAQS).

[Authority for term: OAC rule 3745-77-07(A)(1)]

(3) The exit velocity for this emissions unit shall be maintained at 34.079 meters/second. This exit velocity restriction is based on air dispersion modeling conducted in August of

2006 to determine and maintain compliance with the 24-hour and annual PM_{10} National Ambient Air Quality Standards (NAAQS).

[Authority for term: OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. the amount of each lubricant employed, in pounds;

c. the PE factor for each lubricant employed, in pounds of PE per pound of lubricant;

d. the PM_{10} factor for each lubricant employed, in pounds of PM_{10} per pound of lubricant;

e. the total PE rate for all lubricants employed, in pounds of PE per day, calculated as the sum of (c) x (d) for all lubricants employed;

f. the total PM_{10} rate for all lubricants employed, in pounds of PM_{10} per day, calculated as the sum of (c) x (e) for all lubricants employed;

g. the total number of hours the emissions unit was in operation; and

h. the average hourly PE emission rate calculated as (e)/(f), in lbs/hr (average).

i. the average hourly PE emission rate calculated as (g)/(h), in lbs/hr (average).

NOTE: See f)(1)f. regarding the record keeping applicability.

* Emission testing will not be required for any new lubricants, if the PE and PM_{10} content of the proposed lubricant is less than the 'worst-case' OC-based or water-based lubricant.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTIP0115808]

(2) The permittee shall maintain the following information for this emissions unit:

a. the company identification for each lubricant employed and documentation as to whether or not:

i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);

ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(M) as specified in b)(2)c.; and

iii. the lubricant comes in contact with a flame.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTIP0115808]

(3) On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745- 21-07(M)(4) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

NOTE: See f)(1)a. regarding the record keeping applicability.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTIP0115808]

(4) On each day during which a liquid organic material is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame:

a. Whether or not the liquid organic material utilized has demonstrated through emission testing that at least an 85% reduction in OC emissions would be achieved for each lubricant employed.

Emission testing will not be required for any new lubricants, if the OC content of the proposed lubricant is less than the 'worst-case' OC-based or water-based lubricant.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTIP0115808]

(5) The permittee shall maintain copies of all the stack test results used to develop the OC, PE, and PM_{10} emission factors.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTIP0115808]

(6) 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 emission incident; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of stack observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTIP0115808]

(7) The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing 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. the total duration of any visible emission incident;

c. any corrective actions taken to eliminate the visible emissions;

d. whether the emissions are representative of normal operations; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of fugitive dust observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTIP0115808]

(8) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTIP0115808]

(9) On each day during which a liquid organic lubricant that does not come in contact with a flame is employed, the permittee shall record the following information:

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant; and

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTIP0115808]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each day during which a liquid organic lubricant was employed that has not demonstrated through emission testing that at least an 85% reduction in OC emissions would be achieved.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTIP0115808]

(2) The permittee shall submit quarterly deviation (or excursion) reports to the Cleveland DAQ that identify each day during which the actual average hourly PE and/or PM_{10} rate exceeded the limit in b)(1) and the actual average hourly PE and/or PM_{10} rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTIP0115808]

(3) The permittee shall submit the quarterly deviation (excursion) reports to the Cleveland DAQ in accordance with the Standard Terms and Conditions of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTIP0115808]

(4) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTIP0115808]

(5) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTIP0115808]

f) Testing Requirements

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

a. Emission Limitation:
For lubricants that are exposed to flame, the OC emissions shall not exceed 3.43 lbs/hr and the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(2), d)(3) and d)(4).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate OC emission factor for the lube material employed cannot exceed the allowable OC limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see f)(2)).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

b. Emission Limitation:
For lubricants that are exposed to flame, the OC emissions shall not exceed 14.98 tons/year.

Applicable Compliance Method:
The annual emission limitation was established by multiplying the short-term

emission rate for lubricants that are exposed to flame (3.43 lbs/hr) by 8,760 hours per year and dividing by 2,000 pounds per ton. Therefore, provided compliance is maintained with the pounds per hour limitation, compliance with the annual emission limitation shall also be demonstrated for lubricants that are exposed flame.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

c. Emission Limitation:
For lubricants that are not exposed to temperatures >220 degrees F or flame, the OC emissions shall not exceed 7.30 tons/year.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(9) by summing the daily OC emissions and dividing by 2,000 lbs/ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

d. Emission Limitation:
For each lubricant that does not come in contact with a flame and is exposed to temperatures >220 degrees the OC emissions shall not exceed 3 lbs/hr.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(2) and d)(9).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate OC emission factor for the lube material employed cannot exceed the allowable OC limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see f)(2)).

[Authority for term: OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:
For each lubricant that does not come in contact with a flame and is exposed to temperatures >220 degrees the OC emissions shall not exceed 15 lbs/day.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(2) and d)(9).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum daily lube usage rate multiplied by the appropriate OC emission factor for the lube material employed cannot exceed the allowable OC limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f. Emission Limitation:
PE/PM_{10} emissions shall not exceed 0.009 gr/dscf and 6.50 lbs/hr based off a maximum air flow of 84,300 scfm.

Applicable Compliance Method:
Compliance with the lb/hr emission limit may be determined through the record keeping specified in d)(1).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate PE emission factor for the lube material employed cannot exceed the allowable PE limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

Compliance with the mass emission limitation shall be demonstrated by using Methods 1 through 5, 201 or 201A, as applicable, outlined in 40 CFR Part 60, Appendix A. See f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

g. Emission Limitation:
PE/PM_{10} emissions shall not exceed 28.47 tons/year.

Applicable Compliance Method:
The annual emission limitation was established by multiplying the pound per hour allowable for each pollutant by the maximum operating schedule of 8,760 hours per year and dividing by 2,000 pounds per ton. Therefore, provided compliance is maintained with the pounds per hour limitation, compliance with the annual emission limitation shall also be demonstrated.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

h. Emission Limitation:
Fugitive PE/PM_{10} emissions shall not exceed 1.42 tons/year.

Applicable Compliance Method:
The emission limitation was developed by multiplying the maximum annual PE/PM_{10} emissions (28.47 tons/year) by one (1) minus the capture efficiency of the hood(s) and fan(s) (95%), (1-0.95), which equals 1.42 tons/year.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

i. Emission Limitation:
Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
Compliance may be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

j. Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
Compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit. This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

(2) The permittee shall conduct emissions testing within 24 months after issuance of this permit while employing emission reducing lubricants.

*Emissions units P011, P012, P013, P014, P029, P030 and P104 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.

The emission testing shall be conducted within 24 months of permit issuance for one of the following identical emissions units P011, P012, P013, P014, P029, P030 and P104.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE, PM_{10}, and the control efficiency requirement for OC as specified in b)(1). Separate emission tests shall be performed while using worst case lubricants that are exposed to temperatures >220 degrees F or flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE, Methods 1 through 4 and 201 or 201A for PM_{10}, and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule

3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 9, shall be performed during each test run.

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

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

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

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTIP0115808]

g) Miscellaneous Requirements

(1) P104 and the EFB were installed in 1982. PTI #13-04711 issued on May 15, 2007 no longer required the EFB. To employ reasonably available control measures (RACM), additional hooding and a separate stack were added to the 2583 press.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) If Alcoa chooses to revisit the PM_{10} modeling in the future, it will only be necessary to address the 24-hour PM_{10} NAAQS since the annual PM_{10} standard has been eliminated.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits. Compliance with the conditions of this permit shall be deemed in compliance with any applicable requirements as of the date of permit issuance.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) Superseded permit PTI #13-04711 issued May 15, 2007.

[Authority for term: OAC rule 3745-77-07(C)(1)]

17. P105, Furnace RH 17001 B111

Operations, Property and/or Equipment Description:

Building 111, 16.80 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 17001), operating at a maximum process weight rate of 17,000 lbs/hr of metal (Particulate emissions (PE), carbon monoxide emissions (CO), sulfur dioxide emissions (SO_2) and nitrogen oxides emissions (NO_X) are fugitive emissions.)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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) (PTI #13-846 issued February 26, 1982)	The requirements of this rule are equivalent to the requirements of OAC rules 3745-17-08(B), 3745-17-07(B)(1) and 3745-18-06(E).
b.	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
c.	OAC rule 3745-17-08(B)	See b)(2)a.
d.	OAC rule 3745-18-06(E)	See b)(2)b.

(2) Additional Terms and Conditions

a. No control measures are required for this emissions unit.

b. The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total

weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

c) Operational Restrictions

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

[Authority for term: OAC rule 3745-77-07(A)(1)]

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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. <u>Emission Limitation</u>:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

<u>Applicable Compliance Method</u>:
Compliance shall be determined through visible emissions observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit. This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) P105 was installed in November 1981. P105 is a fugitive source.

[Authority for term: OAC rule 3745-77-07(C)(1)]

18. P107, Furnace RH 6005 B210

Operations, Property and/or Equipment Description:

Building 210, 5.36 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 6005), operating at a maximum process weight rate of 4,500 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger (Particulate emissions (PE), carbon monoxide emissions (CO), sulfur dioxide emissions (SO_2) and nitrogen oxides emissions (NO_X) are fugitive emissions.).

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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) (PTI #13-1216 issued April 18, 1984)	The requirements of this rule are equivalent to the requirements of OAC rules 3745-17-08(B), 3745-17-07(B)(1) and 3745-18-06(E).
b.	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
c.	OAC rule 3745-17-08(B)	See b)(2)a.
d.	OAC rule 3745-18-06(E)	See b)(2)b.

(2) Additional Terms and Conditions

a. No control measures are required for this emissions unit.

b. The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total

weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

c) Operational Restrictions

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

[Authority for term: OAC rule 3745-77-07(A)(1)]

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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing 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. the total duration of any visible emission incident;

c. any corrective actions taken to eliminate the visible emissions;

d. whether the emissions are representative of normal operations; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of fugitive dust observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. <u>Emission Limitation</u>:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

<u>Applicable Compliance Method</u>:
Compliance shall be determined through visible emissions observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit. This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) P107 was installed in November 1955. P107 is a fugitive source.

[Authority for term: OAC rule 3745-77-07(C)(1)]

19. P121, Furnace South H.T. and Age B150 (8001)

Operations, Property and/or Equipment Description:

Building 150, 10.66 mmBtu/hr, direct heat, natural gas-fired heat treat furnace (number 8001, south heat treat), operating at a maximum process weight rate of 8,000 lbs/hr of metal and not using hydrogen scavenger and a 13.50 mmBtu/hr, direct heat, natural gas-fired age oven (number 8001, south heat treat), with a maximum process weight rate of 8,000 lbs/hr of metal and not using hydrogen scavenger (Particulate emissions (PE), carbon monoxide emissions (CO), sulfur dioxide emissions (SO_2) and nitrogen oxides emissions (NO_X) are fugitive emissions.).

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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) (PTI #13-1687 issued March 11,1987)	This rule also includes compliance with the requirements of 3745-17-07(B)(1), 3745-17-08(B) and 3745-18-06(E). Particulate emissions (PE) shall be less than 1.0 ton/year.
b.	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
c.	OAC rule 3745-17-08(B)	See b)(2)a.
d.	OAC rule 3745-18-06(E)	See b)(2)b.

(2) Additional Terms and Conditions

a. No control measures are required for this emissions unit.

b. The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's

total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

c) Operational Restrictions

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

[Authority for term: OAC rule 3745-77-07(A)(1)]

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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

(2) [Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. <u>Emission Limitation</u>:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

<u>Applicable Compliance Method</u>:
Compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible emission

observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit. This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI #13-1687]

b. Emission Limitation:
PE shall be less than 1.0 ton/year.

Applicable Compliance Method:
When burning natural gas, compliance with the annual PE limitation may be demonstrated by the following calculations:

Actual PE of P121 furnace, lb/hr = (0.0019 lb of PE/mmBtu*) x (10.66 mmBtu/hr) = 0.020254 lb/hr

Actual PE of P121 oven, lb/hr = (0.0019 lb of PE/mmBtu) x (13.5 mmBtu/hr) = 0.02565 lb/hr

Actual PE of P121, lbs/hr = (Actual PE of P121 furnace) + (Actual PE of P121 oven)

Actual PE of P121, lbs/hr = (0.020254 + 0.02565) lb/hr = 0.045904 lb/hr

Annual PE of P121, ton/yr = (0.045904 lb/hr) x (8,760 hrs/yr)/(2,000 lbs/ton) = 0.20 ton/yr

* Compilation of Air Pollutant Emission Factors, Section 1.4, Table 1.4-2 (7/98) for filterable particulates in natural gas combustion (1.9 lbs of PE/mmcu. ft.), and dividing by the gross heating value of natural gas (1,000 Btu/cu. ft.).

*Actual PE, lbs/mmBtu = (1.9 lbs of PE/mm cu. ft.)/(1,000 Btu/cu. ft.) = 0.0019 lb of PE/mmBtu

*The pound/million Btu and ton/year emission limitations are based on the emissions unit's potentials to emit while burning natural gas. Therefore, no record keeping, reporting, or testing requirements are necessary to ensure compliance with these emission limitations.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI #13-1687]

g) Miscellaneous Requirements

(1) The P121 heat treat furnace was installed in March 1987 and is a fugitive source.

The P121 age oven was installed in March 1987 and is a fugitive source.

[Authority for term: OAC rule 3745-77-07(C)(1)]

20. P122, Furnace North H.T. and Age B150 (8002)

Operations, Property and/or Equipment Description:

Building 150, 3.78 mmBtu/hr, direct heat, natural gas-fired heat treat furnace (number 8002, north heat treat), operating at a maximum process weight rate of 8,000 lbs/hr of metal and not using hydrogen scavenger and a 7.48 mmBtu/hr, direct heat, natural gas-fired age oven (number 8002, south heat treat), with a maximum process weight rate of 8,000 lbs/hr of metal and not using hydrogen scavenger (Particulate emissions (PE), carbon monoxide emissions (CO), sulfur dioxide emissions (SO_2) and nitrogen oxides emissions (NO_X) are fugitive emissions.).

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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) (PTI #13-1687 issued March 11, 1987)	This rule also includes compliance with the requirements of 3745-17-07(B)(1), 3745-17-08(B) and 3745-18-06(E). Particulate emissions (PE) shall be less than 1.0 ton/year.
b.	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
c.	OAC rule 3745-17-08(B)	See b)(2)a.
d.	OAC rule 3745-18-06(E)	See b)(2)b.

(2) Additional Terms and Conditions

a. No control measures are required for this emissions unit.

b. The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's

total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

c) Operational Restrictions

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

[Authority for term: OAC rule 3745-77-07(A)(1)]

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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. <u>Emission Limitation</u>:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

<u>Applicable Compliance Method</u>:
Compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible emission

observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit. This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI #13-1687]

b. Emission Limitation:
PE shall be less than 1.0 ton/year.

Applicable Compliance Method:
When burning natural gas, compliance with the annual PE limitation may be demonstrated by the following calculations:

Actual PE of P122 furnace, lb/hr = (0.0019 lb of PE/mmBtu*) x (3.78 mmBtu/hr) = 0.00718 lb/hr

Actual PE of P122 oven, lb/hr = (0.0019 lb of PE/mmBtu) x (7.48 mmBtu/hr) = 0.0142 lb/hr

Actual PE of P122, lbs/hr = (Actual PE of P122 furnace) + (Actual PE of P122 oven)

Actual PE of P121, lbs/hr = (0.00718 + 0.0142) lb/hr = 0.02138 lb/hr

Annual PE of P122, ton/yr = (0.02138 lb/hr) x (8,760 hrs/yr) / (2,000 lbs/ton) = 0.0936 ton/yr

* Compilation of Air Pollutant Emission Factors, Section 1.4, Table 1.4-2 (7/98) for filterable particulates in natural gas combustion (1.9 lbs of PE/mmcu. ft.), and dividing by the gross heating value of natural gas (1,000 Btu/cu. ft.).

*Actual PE, lbs/mmBtu = (1.9 lbs of PE/mm cu. ft.) / (1,000 Btu/cu. ft.) = 0.0019 lb of PE/mmBtu

*The pound/million Btu and ton/year emission limitations are based on the emissions unit's potentials to emit while burning natural gas. Therefore, no record keeping, reporting, or testing requirements are necessary to ensure compliance with these emission limitations.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI #13-1687]

g) Miscellaneous Requirements

(1) The P122 heat treat furnace was installed in March 1987 and is a fugitive source.

The P122 age oven was installed in March 1987 and is a fugitive source.

[Authority for term: OAC rule 3745-77-07(C)(1)]

21. P125, Furnace T-9 B206

Operations, Property and/or Equipment Description:

Building 206, 18.64 mmBtu/hr, direct heat, natural gas-fired titanium and steel preheat furnace (number T-9), not using hydrogen scavenger, operating at a maximum process weight rate of 100,000 lbs/load (All particulate emissions (PE), sulfur dioxide emissions (SO_2), and nitrogen oxides emissions (NO_X) are exhausted through a vertical stack.).

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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) (PTI #13-1922 issued November 23, 1988)	Visible particulate emissions from any stack shall not exceed 5% opacity, as a 6-minute average. Particulate emissions (PE) shall not exceed 0.020 lb/mmBtu of actual heat input. Particulate emissions (PE) shall not exceed 0.30 ton/year. Sulfur dioxide (SO_2) emissions shall not exceed 0.03 ton/year. Nitrogen oxide (NO_X) emissions shall not exceed 6.00 tons/year.
b.	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-18-06(E)	See b)(2)a.

(2) Additional Terms and Conditions

a. The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

c) Operational Restrictions

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

[Authority for term: OAC rule 3745-77-07(A)(1)]

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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall collect, record and maintain the following information each year for this emissions unit:

a. the maximum heat input of P125, 18.64 million Btu/hour;

b. the SO_2 emission factor, 0.6 lb of $SO_2/10^6$ CF;

c. the gross heating value of natural gas, 1,000 Btu/cubic foot (CF);

d. the actual hourly SO_2 emission rate, i.e., (a) x (b)/(c), 0.0112 lb of SO_2/hour;

e. the hours of operation, hours/year;

f. the conversion factor, 1 ton/2,000 lbs;

g. the actual annual SO_2 emission rate, i.e., (d) x (e) x (f), tons of SO_2/year;

h. the NO_X emission factor, 100 lbs of $NO_X/10^6$ CF;

i. the actual hourly NO_X emission rate, i.e., (a) x (h)/(c), 1.864 lbs of NO_X/hour; and

j. the actual annual NO_X emission rate, i.e., (i) x (e) x (f), tons of NO_X/year.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit annual deviation (or excursion) reports to the Cleveland DAQ that identify each year during which the actual annual SO_2 and NO_X emission rates exceeded the limits in b)(1). The reports shall be submitted Cleveland DAQ by January 31 of each year; and each report shall cover the previous calendar year. If no emission limitation deviations occurred during a calendar year, the permittee shall submit an annual report, which states that no deviations occurred during the year.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. <u>Emission Limitation</u>:
Visible particulate emissions from any stack shall not exceed 5% opacity, as a 6-minute average.

<u>Applicable Compliance Method</u>:
Compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI#13-1922]

b. <u>Emission Limitation</u>:
Particulate emissions (PE) shall not exceed 0.020 lb/mmBtu of actual heat input.*
Particulate emissions (PE) shall not exceed 0.30 ton/year.*

Applicable Compliance Method:
When burning natural gas, compliance with this emission limitation shall be demonstrated by multiplying the emission factor from the USEPA reference document AP-42, Fifth Edition or the most recent edition of AP-42, Compilation of Air Pollutant Emission Factors, Section 1.4, Table 1.4-2 (7/98) for filterable particulates in natural gas combustion (1.9 lbs of PE/mmcu. ft.), and dividing by the gross heating value of natural gas (1,000 Btu/cu. ft.).

Actual PE, lbs/mmBtu = (1.9 lbs of PE/mm cu. ft.) / (1,000 Btu/cu. ft.) = 0.0019 lb of PE/mmBtu

Actual PE, tons/year = (0.0019 lb of PE/mmBtu) x (18.64 mmBtu/hr) x (8,760 hours/year) x (ton/2,000 lbs) = 0.155 ton/year

*The pound/million Btu and ton/year emission limitations are based on the emissions unit's potentials to emit while burning natural gas. Therefore, no record keeping, reporting, or testing requirements are necessary to ensure compliance with these emission limitations.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI#13-1922]

c. Emission Limitation:
Sulfur dioxide (SO_2) emissions shall not exceed 0.03 ton/year.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping d)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI#13-1922]

d. Emission Limitation:
Nitrogen oxide (NO_X) emissions shall not exceed 6.0 tons/year.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping d)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI#13-1922]

g) Miscellaneous Requirements

(1) P125 was installed in 1988 and is a stack source.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI#13-1922]

22. P152, Furnace Heat Treat Line #3 B150

Operations, Property and/or Equipment Description:

Building 150, 13.00 mmBtu/hr, direct heat, natural gas-fired heat treat furnace not using hydrogen scavenger and a 13.50 mmBtu/hr, direct heat, natural gas-fired age oven (number 8001, south heat treat), with a maximum process weight rate of 8,000 lbs/hr of metal and not using hydrogen scavenger (All particulate emissions (PE), carbon monoxide emissions (CO), sulfur dioxide emissions (SO_2) and nitrogen oxides emissions (NO_X) are exhausted through a vertical stack.).

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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) (PTI #13-3008 issued August 16, 1995)	Visible particulate emissions from any stack shall not exceed 5% opacity, as a 6-minute average. Particulate emissions (PE) shall not exceed .020 lb/mmBtu* of actual heat input, 0.342 lb/hr*, and 1.5 tons/yr*. Nitrogen oxide (NO_X) emissions shall not exceed 0.20 lb/mmBtu* of actual heat input, 3.42 lbs/hr*, and 15.0 tons/yr*. See b)(2)a. This rule also includes compliance with the requirements of OAC rule 3745-18-06(E).
b.	OAC rule 3745-17-07(A)(1)	The visible particulate emission limitation specified by this rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-11(B) Table I	The particulate emission limitation specified by this rule is less stringent than the particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-18-06(E)	See b)(2)b.

(2) Additional Terms and Conditions

a. *The lb/mmBtu, lbs/hr and tons/year emission limitations are based on emissions unit's potentials to emit while burning natural gas. Therefore, no record keeping, reporting, or testing requirements are necessary to ensure compliance with this emission limitation.

b. The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

c) Operational Restrictions

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

[Authority for term: OAC rule 3745-77-07(A)(1)]

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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
Visible particulate emissions from any stack shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:
Compliance shall be determined through visible emission 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). This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI#13-3008]

b. Emission Limitation:
Particulate emissions (PE) shall not exceed 0.020 lb/mmBtu of actual heat input.

Applicable Compliance Method:
When burning natural gas, compliance with this emission limitation may be demonstrated by multiplying the emission factor from the USEPA reference document AP-42, Fifth Edition or the most recent edition of AP-42, Compilation of Air Pollutant Emission Factors, Section 1.4, Table 1.4-2 (7/98) for filterable particulates in natural gas combustion (1.9 lbs of PE/mmcu. ft.), and dividing by the gross heating value of natural gas (1,020 Btu/cu. ft.).

Actual PE, lbs/mmBtu = (1.9 lbs of PE/mm cu. ft.) / (1,020 Btu/cu. ft.) = 0.0019 lb of PE/mmBtu

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

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI#13-3008]

c. Emission Limitation:
Particulate emissions (PE) shall not exceed 0.342 lb/hr.

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

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI#13-3008]

d. Emission Limitation:
Particulate emissions (PE) shall not exceed 1.50 tons/yr.

Applicable Compliance Method:
The annual emission limitation was established by multiplying the pound per hour allowable for each pollutant by the maximum operating schedule of 8,760 hours per year and dividing by 2,000 pounds per ton. Therefore, provided compliance is maintained with the pounds per hour limitation, compliance with the annual emission limitation shall also be demonstrated.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI#13-3008]

e. Emission Limitation:
Nitrogen oxide (NO_X) emissions shall not exceed 0.20 lb/mmBtu of actual heat input.

Applicable Compliance Method:
When burning natural gas, compliance with this emission limitation shall be demonstrated by multiplying the emission factor from the USEPA reference document AP-42, Fifth Edition or the most recent edition of AP-42, Compilation of Air Pollutant Emission Factors, Section 1.4, Table 1.4-2 (7/98) for NO_X in natural gas combustion (100 lbs of NO_X/mm cu. ft.) divided by the gross heating value of natural gas (1,020 Btu/cu. ft.).

Actual NO_X, lbs/mmBtu = (100 lbs of NO_X/mm cu. ft.) / (1,020 Btu/cu. ft.) = 0.10 lb of NO_X/mmBtu

If required, the permittee shall demonstrate compliance with the lb/mmBtu emission limitation through emission testing conducted in accordance with Methods 1 through 4, and 7 of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI#13-3008]

f. Emission Limitation:
Nitrogen oxide (NO_X) emissions shall not exceed 3.42 lbs/hr.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the hourly NO_X emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 7.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI#13-3008]

g. Emission Limitation:
Nitrogen oxide (NO_X) emissions shall not exceed 15.0 tons/yr.

Applicable Compliance Method:
The annual emission limitation was established by multiplying the pound per hour allowable for each pollutant by the maximum operating schedule of 8,760 hours per year and dividing by 2,000 pounds per ton. Therefore, provided compliance is maintained with the pounds per hour limitation, compliance with the annual emission limitation shall also be demonstrated.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI#13-3008]

g) Miscellaneous Requirements

(1) P152 was installed in 1996 and is a stack source.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI#13-3008]

23. P154, Furnace T-12 Titanium Preheat B210

Operations, Property and/or Equipment Description:

Building 210, 18.60 mmBtu/hr, direct heat, natural gas-fired titanium and steel preheat furnace (number T-12), not using hydrogen scavenger, operating at a maximum process weight rate of 200 lbs/hr of metal (All particulate emissions (PE), carbon monoxide emissions (CO), total organic compound emissions (TOC), nitrogen oxide emissions (NO_X), and sulfur dioxide emissions (SO_2) are exhausted through a vertical stack.).

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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) (PTI #13-3010 issued October 12, 1995)	Visible particulate emissions in any exhaust gases shall not exceed 5% opacity, as a 6-minute average. Particulate emissions (PE) shall not exceed 0.020 lb/mmBtu* of actual heat input, 0.372 lb/hr* and 1.63 tons/yr*. Sulfur dioxide (SO_2) emissions shall not exceed 0.05 ton/yr*. Nitrogen oxides (NO_X) emissions shall not exceed 11.4 tons/yr*. Carbon monoxide (CO) emissions shall not exceed 2.9 tons/yr. Total organic compound (TOC) emissions shall not exceed 0.23 ton/yr. This rule also includes compliance with the requirements of OAC rules 3745-31-05(A)(3), 3745-17-08(B) and 3745-18-06(E). See b)(2)a and b)(2)b.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-17-07(A)(1)	The visible particulate emission limitation specified by this rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-18-06(E)	See b)(2)c.

(2) Additional Terms and Conditions

a. *The lb/mmBtu and lbs/hr emission limitations are based on the emissions unit's potentials to emit while burning natural gas. Therefore, no record keeping, reporting, or testing requirements are necessary to ensure compliance with these emission limitations.

b. One pound of TOC emissions is equivalent to one pound of VOC emissions.

c. The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

c) Operational Restrictions

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

[Authority for term: OAC rule 3745-77-07(A)(1)]

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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall collect, record and maintain the following information each year this emissions unit is in operation:

a. heat input of P154, 18.60 million Btu/hour;

b. SO_2 emission factor, 0.6 lb of $SO_2/10^6$ CF;

c. gross heating value of natural gas, 1,020 Btu/cubic foot (CF);

d. actual hourly SO_2 emission rate, i.e., (a) x (b)/(c) = 0.0112 lb of SO_2/hour;

e. hours of operation, hours/year;

f. conversion factor, 1 ton/2,000 lbs;

g. actual annual SO_2 emission rate, i.e., (d) x (e)/(f), ton of SO_2/year;

h. NO_X emission factor, 100 lbs of $NO_X/10^6$ CF;

i. actual hourly NO_X emission rate, i.e., (a) x (h)/(c) = 1.86 lbs of NO_X/hour;

j. actual annual NO_X emission rate, i.e., (i) x (e)/(f), tons of NO_X/year;

k. CO emission factor, 84 lbs of CO/10^6 CF;

l. actual hourly CO emission rate, i.e., (a) x (k)/(c) = 1.56 lbs of CO/hour;

m. actual annual CO emission rate, i.e., (l) x (e)/(f), tons of CO/year;

n. TOC emission factor, 11 lbs of TOC/10^6 CF;

o. actual hourly TOC emission rate, i.e., (a) x (n)/(c) = 0.205 lb of TOC/hour; and

p. actual annual TOC emission rate, i.e., (o) x (e)/(f), tons of TOC/year.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit annual deviation (or excursion) reports to the Cleveland DAQ that identify each year during which the actual annual SO_2, NO_X, CO, and/or TOC emission rates exceeded the limits in b)(1). The reports shall be submitted to the Cleveland DAQ by January 31 of each year; and each report shall cover the previous calendar year. If no emission limitation deviations occurred during a calendar year, the

permittee shall submit an annual report, which states that no deviations occurred during the year.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
Visible particulate emissions in any exhaust gases shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:
Compliance shall be determined through visible emission 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). This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI#13-3010]

b. Emission Limitation:
Particulate emissions (PE) shall not exceed 0.020 lb/mmBtu of actual heat input. Particulate emissions (PE) shall not exceed 0.372 lb/hr.

Applicable Compliance Method:
When burning natural gas, compliance with these emission limitations may be demonstrated by multiplying the emission factor from the USEPA reference document AP-42, Fifth Edition or the most recent edition of AP-42, Compilation of Air Pollutant Emission Factors, Section 1.4, Table 1.4-2 (7/98) for filterable particulates in natural gas combustion (1.9 lbs of PE/mmcu. ft.), and dividing by the gross heating value of natural gas (1,020 Btu/cu. ft.).

Actual PE, lbs/mmBtu = (1.9 lbs of PE/mm cu. ft.) / (1,020 Btu/cu. ft.) = 0.0019 lb of PE/mmBtu

Actual PE, lbs/hr = (0.0019 lb of PE/mmBtu) x (18.60 mmBtu/hr) = 0.0353 lb of PE/hr

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

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI#13-3010]

c. Emission Limitation:
Particulate emissions (PE) shall not exceed 1.63 tons/year.
Sulfur dioxide (SO_2) emissions shall not exceed 0.05 ton/year.
Nitrogen oxides (NO_X) emissions shall not exceed 11.4 tons/year.
Carbon monoxide (CO) emissions shall not exceed 2.9 tons/year.
Total organic compound (TOC) emissions shall not exceed 0.23 ton/year.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI#13-3010]

g) Miscellaneous Requirements

(1) P154 was installed in 1996. P154 is a stack source.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI#13-3010]

24. P159, Furnace 4601 B114

Operations, Property and/or Equipment Description:

Building 114, 3.60 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 4601), operating at a maximum process weight rate of 4,600 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger (Particulate emissions (PE), carbon monoxide emissions (CO), sulfur dioxide emissions (SO_2) and nitrogen oxides emissions (NO_X) are fugitive emissions.).

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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) (PTI #13-3180 issued May 28, 1997)	Visible emissions of fugitive dust shall not exceed 5% opacity, as a 3-minute average. Fugitive dust emissions shall not exceed 0.29 lb/hr and 1.27 tons/yr. Nitrogen oxides (NO_X) emissions shall not exceed 0.51 lb/hr and 2.23 tons/yr. See b)(2)c. Hydrogen fluoride (HF) emissions shall not exceed 0.251 lb/hr and 1.1 tons/yr. The requirements of this rule are equivalent to the requirements of OAC rules 3745-17-08(B) and 3745-18-06(E).
b.	OAC rule 3745-17-07(B)(1)	The fugitive emission limitation specified by this rule is less stringent than the fugitive emission limitation established pursuant to OAC 3745-31-05(A)(3).
c.	OAC rule 3745-17-08(B)	See b)(2)a.
d.	OAC rule 3745-18-06(E)	See b)(2)b.

(2) Additional Terms and Conditions

a. The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

b. The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

c. The lb/hr and tons/year emission limitations for NO_X are based on the emissions unit's potentials to emit while burning natural gas. Therefore, no record keeping, reporting, or testing requirements are necessary to ensure compliance with this emissions limitation.

c) Operational Restrictions

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

[Authority for term: OAC rule 3745-77-07(A)(1)]

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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall collect, record and maintain the following information each month this emissions unit is in operation:

a. the usage of scavenger in this emissions unit, in lbs;

b. the actual PE generated by this emissions unit due to the usage of scavenger, i.e., (a) x 0.175 lb of PE/lb scavenger*, in lbs of PE;

c. the operating hours of this emissions unit ;

d. the actual average hourly scavenger usage, i.e.,(a)/(c);

e. the actual average PE rate due to the usage of scavenger, in lbs PE/hr, i.e., (b)/(c);

f. the actual hourly PE rate from the combustion of natural gas, i.e., (3.6 mmBtu/hr) x (1.9 lbs PE/mmCF**) / (1,020 Btu/CF) = 0.00684 lb PE/hr;

g. the combined actual average hourly PE rate, in lbs/hr, i.e., (e) + (f); generated by this emissions unit as determined in f)(1)b.;

h. the actual hourly NO_X emission rate, i.e., (3.6 mmBtu/hr) x (100 lbs NO_X/mmCF**) / (1,020 Btu/CF) = 0.36 lb NO_X/hr;

i. the actual HF generated by this emissions unit, i.e., (a) x 0.1908 lb of HF/lb of scavenger*, in lbs of HF; and

j. the actual average hourly HF emissions generated by this emissions unit, in lbs/hr, i.e., (i)/(c).

*This emission factor is based on prior emission testing and may be updated based on additional emission tests performed in accordance with f)(1).

**This emission factor was obtained from the USEPA reference document AP-42, Fifth Edition or the most recent edition of AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.4-2 (7/98) for filterable particulates (1.9 lbs PE/mmCF) and for NO_X (100 lbs NO_X/mmCF) in natural gas combustion.

*** NOTE: See f)(1)b. and f)(1)f. regarding the record keeping applicability.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing 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. the total duration of any visible emission incident;

c. any corrective actions taken to eliminate the visible emissions;

d. whether the emissions are representative of normal operations; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of fugitive dust observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit quarterly deviation (or excursion) reports to the Cleveland DAQ that identify each month during which the actual average hourly fugitive dust and/or HF emission rates, in lbs/hr, exceeded the limits in b)(1).

The quarterly deviation (excursion) reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
Visible emissions of fugitive dust shall not exceed 5% opacity, as a 3-minute average.

Applicable Compliance Method:
Compliance shall be determined through visible emission 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). This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI#13-3180]

b. Emission Limitation:
Fugitive dust emissions shall not exceed 0.29 lb/hr.

Applicable Compliance Method:
Compliance with the hourly limitation shall be based upon the monitoring and record keeping requirements in d)(2).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly hydrogen scavenger (AFB) material usage rate multiplied by the appropriate PE emission factor for the AFB material employed cannot exceed the allowable PE limitation.

If compliance cannot be demonstrated through this calculation method using the maximum AFB material usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual AFB material usage rates.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI#13-3180]

c. Emission Limitation:
Fugitive dust emissions shall not exceed 1.27 tons/year.

Applicable Compliance Method:
Compliance with the annual limitation shall be based upon the monitoring and record keeping requirements in d)(2) and the following calculation: [(hrs of operation/yr) x (d)(2)e + d)(2)f.)] / (2,000 lbs/ton)

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI#13-3180]

d. Emission Limitation:
Nitrogen oxides (NO_X) emissions shall not exceed 0.51 lb/hr.

Applicable Compliance Method:
Compliance with the hourly limitation shall be based upon the monitoring and record keeping requirements in d)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI#13-3180]

e. Emission Limitation:
Nitrogen oxides (NO_X) emissions shall not exceed 2.23 tons/year.

Applicable Compliance Method:
The annual emission limitation was established by multiplying the pound per hour allowable for each pollutant by the maximum operating schedule of 8,760 hours per year and dividing by 2,000 pounds per ton. Therefore, provided compliance is maintained with the pounds per hour limitation, compliance with the annual emission limitation shall also be demonstrated.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI#13-3180]

f. Emission Limitation:
Hydrogen fluoride (HF) emissions shall not exceed 0.251 lb/hr.

Applicable Compliance Method:
Compliance with the hourly limitation shall be based upon the monitoring and record keeping requirements in d)(2).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly hydrogen scavenger (AFB) material usage rate multiplied by the appropriate PE emission factor for the AFB material employed cannot exceed the allowable PE limitation.

If compliance cannot be demonstrated through this calculation method using the maximum AFB material usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual AFB material usage rates.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI#13-3180]

g. Emission Limitation:
Hydrogen fluoride (HF) emissions shall not exceed 1.1 tons/year.

Applicable Compliance Method:
The annual emission limitation was established by multiplying the pound per hour allowable for each pollutant by the maximum operating schedule of 8,760 hours per year and dividing by 2,000 pounds per ton. Therefore, provided compliance

is maintained with the pounds per hour limitation, compliance with the annual emission limitation shall also be demonstrated.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI#13-3180]

g) Miscellaneous Requirements

(1) P159 was installed in 1997 and is a fugitive source.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI#13-3180]

25. P162, Inconel Preheat Furnace

Operations, Property and/or Equipment Description:

Building 206, 27.0 mmBtu/hr, direct heat, natural gas-fired Inconel preheat furnace not using hydrogen scavenger, operating at a maximum process weight rate of 2,609 lbs/load of metal (Particulate emissions (PE), carbon monoxide emissions (CO), volatile organic compound emissions (VOC), nitrogen oxides emissions (NO_X), and sulfur dioxide emissions (SO_2) are exhausted through a vertical stack.).

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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) (PTI #13-03811 issued April 24, 2001)	Visible particulate emissions from any stack shall not exceed 5% opacity, as a 6-minute average. Particulate emissions (PE) shall not exceed 0.41 lb/hr* and 1.80 tons per year*. Carbon monoxide (CO) emissions shall not exceed 4.54 lbs/hr* and 19.87 tons per year*. Volatile organic compound (VOC) emissions shall not exceed 0.30 lb/hr* and 1.31 tons per year*. Nitrogen oxide (NO_X) emissions shall not exceed 5.40 lbs/hr* and 23.65 tons per year*. The requirements of this rule also include compliance with the requirements of OAC rule 3745-18-06(E). See b)(2)a.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-17-07(A)(1)	The visible particulate emission limitation specified by this rule is less stringent than the visible particulate emission limitation established pursuant to OAC 3745-31-05(A)(3).
c.	OAC rule 3745-17-11(A)	The particulate emission limitation specified by this rule is less stringent than the particulate emission limitation established pursuant to OAC 3745-31-05(A)(3).
d.	OAC rule 3745-18-06(E)	See b)(2)b.

(2) Additional Terms and Conditions

a. *The pounds/hour and tons/year emission limitations are equal to or greater than the emissions unit's potentials to emit while burning natural gas. Therefore, no record keeping, reporting, or testing requirements are necessary to ensure compliance with these emission limitations.

b. The sulfur dioxide emissions from this emissions unit are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of the emissions unit's total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into the emissions unit are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for this emissions unit.

c) Operational Restrictions

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

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(A)(3) and PTI #13-03811]

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.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI #13-03811]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI #13-03811]

f) Testing Requirements

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

a. Emission Limitation:
Visible particulate emissions from any stack shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:
Compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI#13-03811]

b. Emission Limitation:
Emissions from the combustion of natural gas shall not exceed:
0.41 pound PE/hour, 1.80 tons PE/year
0.30 pound VOC/hour, 1.31 tons VOC/year
5.40 pounds NO_X/hour; 23.65 tons NO_X/year
4.54 pounds CO/hour, 19.87 tons CO/year

Applicable Compliance Methods:
Compliance with the hourly emission limitations may be determined by multiplying the emissions unit's maximum hourly natural gas usage (27,000 ft^3/hour) by the appropriate emission factor for each pollutant from USEPA's

Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition or the most recent edition of AP-42, Table 1.4-2 (7/98) for natural gas (pounds/mmft^3).

The annual emission limitation was established by multiplying the pound per hour allowable for each pollutant by the maximum operating schedule of 8,760 hours per year and dividing by 2,000 pounds per ton. Therefore, provided compliance is maintained with the pounds per hour limitation, compliance with the annual emission limitation shall also be demonstrated.

If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission testing conducted in accordance with the USEPA Test Methods 1 through 4 for gas flow characteristics, Test Method 5 and the procedures specified in OAC rule 3745-17-03(B)(10) for PE, Test Method 7 for nitrogen oxide emissions, Test Method 10 for carbon monoxide emissions, and Test Methods 18, 25, 25A, or 25B for VOC emissions of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI#13-03811]

g) Miscellaneous Requirements

(1) P162 was installed in September 2001. P162 is a stack source.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI#13-03811]

26. P164, 5082 Blocking Press

Operations, Property and/or Equipment Description:

Building 112, 5,000 tons blocking press 5082, robots, conveyors, dies, and other tooling for production of metal forgings, with a maximum batch process weight rate of 12,500 lbs/hr

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) d)(8) and d)(9).

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) (PTI P0115808 issued final April 28, 2014)	Organic compound (OC) emissions shall not exceed 7.3 tons/yr. Particulate emissions (PE) shall not exceed 0.03 grain per dry standard cubic foot (gr/DSCF) of exhaust gas, 0.87 lb/hr which is based on 3,363 DSCFM and 3.79 tons/yr. This rule also includes compliance with the requirements of OAC rules 3745-17-07(A)(1) and 3745-21-07(M)(4).
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
c.	OAC rule 3745-17-11(B)	The particulate emission limitation specified by this rule is less stringent than the particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-21-07(M)(4)	For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit. See b)(2)a.
e.	OAC rule 3745-21-07(M)	For the lubricants that are not exposed to temperatures >220 degrees F or flame, there are no applicable requirements from this rule.

(2) Additional Terms and Conditions

a. The Ohio EPA has determined that OAC rule 3745-21-07(M)(4) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(M)(4) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(M) pursuant to OAC rule 3745-21-07(M)(5)(c) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

b. As specified in OAC rule 3745- 21-07(M)(5)(d), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745- 21-07(M):

i. the volatile content of the lubricant consists only of water and liquid organic material; and

ii. the liquid organic material comprises not more than twenty per cent, by volume, of said volatile content.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. the amount of each lubricant employed, in pounds;

c. the PE factor for each lubricant employed, in pounds of PE per pound of lubricant;

d. the total PE rate for all lubricants employed, in pounds of PE per day, calculated as the sum of (c) x (d) for all lubricants employed;

e. the total number of hours the emissions unit was in operation; and

f. the average hourly PE emission rate calculated as (e)/(f), in lbs/hr (average).

NOTE: See f)(1)e. regarding the record keeping applicability.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall maintain the following information for this emissions unit:

a. the company identification for each lubricant employed and documentation as to whether or not:

i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);

ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(M) as specified in b)(2)b.; and

iii. the lubricant comes in contact with a flame.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745- 21-07(M), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745- 21-07(M)(4) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

NOTE: See f)(1)b. and f)(1)c. regarding the record keeping applicability.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) On each day during which a liquid organic lubricant is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame:

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant; and

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

(5) The permittee shall maintain copies of all the stack test results used to develop the OC and particulate emission factors.

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particulate emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE.

Emission testing will not be required for any new lubricants, if the OC and PE content of the proposed lubricant is less than the 'worst-case' OC-based or water-based lubricant.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) 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 emission incident; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of stack observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(8) Air Toxic Policy Clarifying Language

The permit to install for this emissions unit (P164) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Ethanol, 2-amino, C2H7NO, 141-43-5

TLV (mg/m3): 7.49

Maximum Hourly Emission Rate (lbs/hr): 2.67

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 100

MAGLC (ug/m3): 178

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee shall not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(9) If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) For all the days when the record keeping in d)(3) was required, the permittee shall submit quarterly deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745- 21-07(M), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) For all the days when the record keeping in d)(3) was required, the permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745- 21-07(M), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which the actual average hourly PE rate exceeded 0.87 lb/hr and the actual average hourly PE rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit the quarterly deviation (excursion) reports to the Cleveland DAQ in accordance with the Standard Terms and Conditions of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

(5) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average.

Applicable Compliance Method:
Compliance may be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

b. Emission Limitation:
For the lubricants that are exposed to temperatures >220 degrees F or flame, the OC emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions.

Applicable Compliance Method:
Compliance may be determined pursuant to the monitoring and record keeping in d)(2), d)(3) and d)(4).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate OC emission factor for the lube material employed cannot exceed the allowable OC limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see f)(2)).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

c. Emission Limitation:
For the lubricants that are exposed to temperatures >220 degrees F or flame, the OC emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(2), d)(3) and d)(4).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum daily lube usage rate multiplied by the appropriate OC emission factor for the lube material employed cannot exceed the allowable OC limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

d. Emission Limitation:
OC emissions shall not exceed 7.3 tons/yr.

Applicable Compliance Method:
Compliance shall be determined in accordance with the record keeping in d)(4) by summing the daily emissions for each calendar year and dividing by 2,000 lbs/ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

e. Emission Limitation:
Particulate emissions (PE) shall not exceed 0.03 grain per DSCF of exhaust gas, 0.87 lb/hr.

Applicable Compliance Method:
Compliance with the particulate emission (PE) limitation may be demonstrated by use of the following calculation:

Actual PE concentration, gr/DSCF = (Actual hourly PE rate, lbs PE/hr) x (7,000 gr/lb) x (hr/60 minutes) / (air volume flow rate, DSCFM)

Air volume flow rate, DSCFM = ACFM x (1 - moisture in air) x TCF x PCF

TCF = (460 + 70 degrees Fahrenheit) / (460 + air temperature, degrees Fahrenheit)

PCF = (actual stack gas pressure, mm Hg) / (760 mm Hg)

Where:
DSCF = dry standard cubic feet
DSCFM = dry standard cubic feet per minute
ACFM = actual cubic feet per minute
gr = grain
TCF = stack gas temperature correction factor

PCF = stack gas pressure correction factor

Or compliance may be determined pursuant to the monitoring and record keeping in d)(1).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate PE emission factor for the lube material employed cannot exceed the allowable PE limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

f. Emission Limitation:
Particulate emissions (PE) shall not exceed 3.79 TPY

Applicable Compliance Method:
The annual emission limitation was established by multiplying the pound per hour allowable for each pollutant by the maximum operating schedule of 8,760 hours per year and dividing by 2,000 pounds per ton. Therefore, provided compliance is maintained with the pounds per hour limitation, compliance with the annual emission limitation shall also be demonstrated.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

(2) The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*Emissions units P164 and P165 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.

The emission testing shall be conducted within 36 months of permit issuance for one of the following identical emissions units P164 and P165.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and the control efficiency requirement for OC as specified in b)(1). Separate emission tests shall be performed while using worst case lubricants that are exposed to temperatures >220 degrees F or flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 9, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

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

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

g) Miscellaneous Requirements

(1) Emissions are exhausted through a vertical stack at a nominal exit gas flow rate of 3,594 ACFM. P164 was installed in September 2001.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

(2) The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

(3) Superseded permit PTI 13-3882 issued March 7, 2002.

[Authority for term: OAC rule 3745-77-07(C)(1)]

27. P165, 5083 Blocking Press

Operations, Property and/or Equipment Description

Modified 5,000 ton blocking press 5083 for production of metal forgings with a maximum batch process weight rate of 12,500 lbs/hr and an emission factor dependent lubricant usage level of 47.28 lbs/hr, operating at 650-880 degrees F

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) d)(8) and d)(9).

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) (PTI P0115808 issued final April 28, 2014)	Organic compound (OC) emissions shall not exceed 7.3 tons/yr. Particulate emissions (PE) shall not exceed 0.03 grain per dry standard cubic foot (gr/DSCF) of exhaust gas, 0.87 lb/hr which is based on 3,363 DSCFM and 3.79 tons/yr. This rule also includes compliance with the requirements of OAC rules 3745-17-07(A)(1) and 3745-21-07(M)(4).
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
c.	OAC rule 3745-17-11(B)	The particulate emission limitation specified by this rule is less stringent than the particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-21-07(M)(4)	For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit. See b)(2)a.
e.	OAC rule 3745-21-07(M)	For the lubricants that are not exposed to temperatures >220 degrees F or flame, there are no applicable requirements from this rule.

(2) Additional Terms and Conditions

a. The Ohio EPA has determined that OAC rule 3745-21-07(M)(4) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(M)(4) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(M) pursuant to OAC rule 3745-21-07(M)(5)(c) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

b. As specified in OAC rule 3745- 21-07(M)(5)(d), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745- 21-07(M):

i. the volatile content of the lubricant consists only of water and liquid organic material; and

ii. the liquid organic material comprises not more than twenty per cent, by volume, of said volatile content.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall record the following information for each day when this emissions unit is in operation:

a. the company identification of each lubricant employed;

b. the amount of each lubricant employed, in pounds;

c. the PE factor for each lubricant employed, in pounds of PE per pound of lubricant;

d. the total PE rate for all lubricants employed, in pounds of PE per day, calculated as the sum of (c) x (d) for all lubricants employed;

e. the total number of hours the emissions unit was in operation; and

f. the average hourly PE emission rate calculated as (e)/(f), in lbs/hr (average).

NOTE: See f)(1)e. regarding the record keeping applicability.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall maintain the following information for this emissions unit:

a. the company identification for each lubricant employed and documentation as to whether or not:

i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);

ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(M) as specified in b)(2)b.; and

iii. the lubricant comes in contact with a flame.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745- 21-07(M), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745- 21-07(M)(4) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

NOTE: See f)(1)b. and f)(1)c. regarding the record keeping applicability.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

(4) On each day during which a liquid organic lubricant is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame:

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

a. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant; and

b. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed.

(5) The permittee shall maintain copies of all the stack test results used to develop the OC and particulate emission factors.

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particulate emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE.

Emission testing will not be required for any new lubricants, if the OC and PE content of the proposed lubricant is less than the 'worst-case' OC-based or water-based lubricant.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) 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 emission incident; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of stack observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(8) Air Toxic Policy Clarifying Language

The permit to install for this emissions unit (P165) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Ethanol, 2-amino, C2H7NO, 141-43-5

TLV (mg/m3): 7.49

Maximum Hourly Emission Rate (lbs/hr): 2.67

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 100

MAGLC (ug/m3): 178

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee shall not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

[Authority for term: OAC rules 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI P0115808]

(9) If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

[Authority for term: OAC rules 3745-77-07(C)(1) and 3745-31-05(A)(3) and PTI P0115808]

e) Reporting Requirements

(1) For all the days when the record keeping in d)(3) was required, the permittee shall submit quarterly deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745- 21-07(M), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) For all the days when the record keeping in d)(3) was required, the permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745- 21-07(M), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which the actual average hourly PE rate exceeded 1.16 lb/hr and the actual average hourly PE rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit the quarterly deviation (excursion) reports to the Cleveland DAQ in accordance with the Standard Terms and Conditions of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

(5) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average.

Applicable Compliance Method:
Compliance may be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

b. Emission Limitation:
For the lubricants that are exposed to temperatures >220 degrees F or flame, the OC emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions.

Applicable Compliance Method:
Compliance may be determined pursuant to the monitoring and record keeping in d)(2), d)(3) and d)(4).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate OC emission factor for the lube material employed cannot exceed the allowable OC limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see f)(2)).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

c. Emission Limitation:
For the lubricants that are exposed to temperatures >220 degrees F or flame, the OC emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(2), d)(3) and d)(4).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum daily lube usage rate multiplied by the appropriate OC emission factor for the lube material employed cannot exceed the allowable OC limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

d. Emission Limitation:
OC emissions shall not exceed 7.3 tons/yr.

Applicable Compliance Method:
Compliance shall be determined in accordance with the record keeping in d)(4) by summing the daily emissions for each calendar year and dividing by 2,000 lbs/ton.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

e. Emission Limitation:
Particulate emissions (PE) shall not exceed 0.03 grain per DSCF of exhaust gas, 0.87 lb/hr.

Applicable Compliance Method:
Compliance with the particulate emission (PE) limitation may be demonstrated by use of the following calculation:

Actual PE concentration, gr/DSCF = (Actual hourly PE rate, lbs PE/hr) x (7,000 gr/lb) x (hr/60 minutes) / (air volume flow rate, DSCFM)

Air volume flow rate, DSCFM = ACFM x (1 - moisture in air) x TCF x PCF

TCF = (460 + 70 degrees Fahrenheit) / (460 + air temperature, degrees Fahrenheit)

PCF = (actual stack gas pressure, mm Hg) / (760 mm Hg)

Where:
DSCF = dry standard cubic feet
DSCFM = dry standard cubic feet per minute
ACFM = actual cubic feet per minute
gr = grain
TCF = stack gas temperature correction factor

PCF = stack gas pressure correction factor

Or compliance may be determined pursuant to the monitoring and record keeping in d)(1).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate PE emission factor for the lube material employed cannot exceed the allowable PE limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

f. Emission Limitation:
Particulate emissions (PE) shall not exceed 3.79 TPY

Applicable Compliance Method:
The annual emission limitation was established by multiplying the pound per hour allowable for each pollutant by the maximum operating schedule of 8,760 hours per year and dividing by 2,000 pounds per ton. Therefore, provided compliance is maintained with the pounds per hour limitation, compliance with the annual emission limitation shall also be demonstrated.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

(2) The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

* Emissions units P164 and P165 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.

The emission testing shall be conducted within 36 months of permit issuance for one of the following identical emissions units P164 and P165.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and the control efficiency requirement for OC as specified in b)(1). Separate emission tests shall be performed while using worst case lubricants that are exposed to temperatures >220 degrees F or flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 9, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

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

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

g) Miscellaneous Requirements

(1) Emissions are exhausted through a vertical stack at a nominal exit gas flow rate of 4,900 ACFM. P165 was installed in September 2001.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

(2) The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

(3) Superseded permit PTI 13-3882 issued March 7, 2002.

[Authority for term: OAC rule 3745-77-07(C)(1)]

28. P177, No.16 Soaker Furnace Bldg. 206

Operations, Property and/or Equipment Description:

Building 206, 5.00 mmBtu/hr, indirect heat, natural gas-fired ingot soaking furnace (number 16), operating at a maximum process weight rate of 25,000 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger. Particulate emissions (PE) are vented through a baghouse filter dust collector. 120,000 lbs SECO Ingot Soaking Furnace.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01 Permit No. P0110069 issued August 7, 2012.	Nitrogen oxide (NOx) emissions shall not exceed 0.49 lb/hr and 2.15 tpy. Carbon monoxide (CO) emissions shall not exceed 0.41 lb/hr and 1.80 tpy. Particulate emissions shall not exceed 2.85 tpy. The requirements of this rule include compliance with the emission limitations established pursuant to OAC rules OAC rule 3745-17-07(A)(1), 17-07(B)(1), 17-08(B), 17-10(B)(1) and 17-11(B)(1). See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 12/1/06 Permit No. P0110069 issued August 7, 2012.	See b)(2)b. below.
c.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
e.	OAC rule 3745-17-08(B)	See b)(2)c. below.
f.	OAC rule 3745-17-10(B)(1)	Particulate emissions (PE) from the gas burner flue gas exhaust shall not exceed 0.020 lb/mmBtu of actual heat input.
g.	OAC rule 3745-17-11(B)	Particulate emissions (PE) shall not exceed 0.551 lb/hr (based upon Table I) from the control device.

(2) Additional Terms and Conditions

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

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

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate emissions from this air contaminant source since the calculated annual emission rate for particulate emissions is less than 10 tons per year taking into account the federally enforceable rule limits of 0.02 lb/mmBtu under OAC rule 3745-17-10(B)(1) and 0.551 lb/hr under OAC rule 3745-17-11(B)(1).

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NOx, SO_2, CO, OC and VOC emissions from this air contaminant source since the uncontrolled potential to emit for NOx, SO_2, CO, OC and VOC emissions are each less than 10 tons per year.

c. The permittee shall employ the reasonably available control measures for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on load cars or trays to introduce the hydrogen scavenger into the furnace or the oven.

d. Because this emissions unit is fired only with natural gas, there is no applicable SO_2 emission limitation from Chapter 3745-18.

c) Operational Restrictions

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

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(A)(3) and PTI P0110069]

(2) The emissions from this emissions unit shall be vented to the baghouse filter dust collector at all times the emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(A)(3) and PTI P0110069]

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.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0110069]

(2) The permittee shall collect, record and maintain the following information each month this emissions unit is in operation:

a. the scavenger usage for this emissions unit, in lbs;

b. the PE generated by this emissions unit, i.e., (a) x (0.175 lb of PE/lb scavenger*) x (1 - fractional control efficiency for control device), in lbs of PE;

c. the operating hours of this emissions unit; and

d. the actual average hourly PE rate for this emissions unit, i.e., (b)/(c), in lbs of PE/hr.

NOTE: See f)(1)d. regarding the record keeping applicability.

*This emission factor is based on prior emission testing; may be updated based on additional emission tests performed in accordance with f)(2) below.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0110069]

(3) The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing 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. the total duration of any visible emission incident;

c. any corrective actions taken to eliminate the visible emissions;

d. whether the emissions are representative of normal operations; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of fugitive dust observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0110069]

(4) 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 emission incident; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of stack observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0110069]

(5) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0110069]

(6) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse filter is between 1.0 to 14.0 inches of water.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0110069]

(7) The permittee shall properly operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse filter when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse filter on a daily basis when the emissions unit is operating. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

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

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

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

e. the findings and recommendations.

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

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

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

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

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

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

This range or limit on the pressure drop across the baghouse filter is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Cleveland Division of Air Quality (Cleveland DAQ). 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 a minor permit modification.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0110069]

(8) The PTI application for this/these emissions unit(s), P177, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC

rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

   i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or

   ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "24" hours per day and "7" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

   $$TLV/10 \times 8/X \times 5/Y = 4\ TLV/XY = MAGLC$$

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

   Toxic Contaminant: Hydrogen Fluoride

   TLV (mg/m3): 0.41

   Maximum Hourly Emission Rate (lbs/hr): 0.763

   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3.48

   MAGLC (ug/m3): 9.76

The permittee, has demonstrated that emissions of Hydrogen Fluoride, from emissions unit(s) P177, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0110069]

(9) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and

c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0110069]

(10) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s)

modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);

c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0110069]

(11) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0110069]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0110069]

(2) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0110069]

(3) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0110069]

(4) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify the following:

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

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

c. each incident of deviation described in e)(4)a. (above) where a prompt investigation was not conducted;

d. each incident of deviation described in e)(4)a. where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in e)(4)a. where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0110069]

(5) The permittee shall submit annual reports to the Cleveland DAQ that include any changes to any parameter or value used in the dispersion model used to demonstrate compliance with the “Toxic Air Contaminate Statute”, ORC 3704.03(F), through the predicted 1 hour maximum concentration. The report should include:

a. the original model input;

b. the updated model input;

c. the reason for the change(s) to the input parameter(s); and

d. a summary of the results of the updated modeling, including the input changes; and

e. a statement that the model results indicate that the 1-hour maximum ground-level concentration is less than 80% of the MAGLC.

If no changes to the emissions, emissions unit(s), or the exhaust stack have been made during the reporting period, then the report shall include a statement to that effect.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0110069]

f) Testing Requirements

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

a. Emission Limitation:
Visible particulate emissions from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
Compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0110069]

b. Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
Compliance shall be determined through visible emissions observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit. This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0110069]

c. Emission Limitation:
Particulate emissions (PE) from the gas burner flue gas exhaust shall not exceed 0.020 lb/mmBtu of actual heat input.

Applicable Compliance Method:
When burning natural gas, compliance with this emission limitation may be demonstrated by multiplying the emission factor from the USEPA reference document AP-42, Fifth Edition or the most recent edition of AP-42, Compilation of

Air Pollutant Emission Factors, Section 1.4, Table 1.4-2 (7/98) for total particulates during natural gas combustion (7.6 lbs of PE/mmcf.) and dividing by the gross heating value of natural gas (1,000 Btu/cf.). Multiply this lb/mmBtu emission rate by the maximum heat input of the furnace (5.00 mmBtu/hr) to arrive at the lb/hr particulate emission rate.

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with Methods 1 -5 found in 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0110069]

d. Emission Limitation:
Particulate emissions (PE) shall not exceed 0.551 lb/hr.

Applicable Compliance Method:
Compliance may be determined pursuant to the monitoring and record keeping in d). A PE factor in lb PE/lb hydrogen scavenger was developed by the permittee from stack test emission data. See f)(2). Other emission factors that are generated from stack test emission data may be used with prior approval of the Cleveland DAQ.

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly hydrogen scavenger (AFB) material usage rate multiplied by the appropriate PE emission factor for the AFB material employed cannot exceed the allowable PE limitation.

If compliance cannot be demonstrated through this calculation method using the maximum AFB material usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual AFB material usage rates.

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with USEPA Methods 1 through 5 in 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0110069]

e. Emission Limitation:
Particulate emissions shall not exceed 2.85 tons per year.

Applicable Compliance Method:
The ton per year limitation was developed by multiplying the sum of the short term lb/hr particulate emission rates determined in f)(1)c. and f)(1)d. by the maximum operating schedule of 8,760 hours/year, and dividing by 2,000 pounds/ton. Therefore, compliance with the annual emission limitation shall be demonstrated provided compliance is maintained with the lb/hr limitations.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0110069]

f. Emission Limitation:
Nitrogen oxide (NOx) emissions shall not exceed 0.49 lb/hr and 2.15 tpy

Applicable Compliance Method:
Compliance shall be based upon multiplying the maximum hourly gas burning capacity of the emissions unit (0.004902 mmcf/hr) by the AP-42 emission factor* for NOx (100 lbs NOx/mmcf).

*AP-42, Fifth Edition, Supplement D (7-98), Table 1.4-1

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1-4 and 7 of 40 CFR Part 60, Appendix A.

The annual emission limitation was established by multiplying the hourly emission limitation by 8,760 hours per year and dividing by 2,000 pounds per ton. Therefore, if compliance is demonstrated with the hourly emission limitation, it is also in compliance with the annual limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0110069]

g. Emission Limitation:
Carbon monoxide (CO) emissions shall not exceed 0.41 lb/hr and 1.80 tpy.

Applicable Compliance Method:
Compliance shall be based upon multiplying the maximum hourly gas burning capacity of the emissions unit (0.004902 mmcf/hr) by the AP-42 emission factor* for CO (84 lbs CO/mmcf).

*AP-42, Fifth Edition, Supplement D (7-98), Table 1.4-1

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1-4 and 10 of 40 CFR Part 60, Appendix A.

The annual emission limitation was established by multiplying the hourly emission limitation by 8,760 hours per year and dividing by 2,000 pounds per ton. Therefore, if compliance is demonstrated with the hourly emission limitation, it is also in compliance with the annual limitation.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0110069]

(2) The permittee shall conduct emission testing for this emissions unit in accordance with the requirements below.

The emission testing shall be conducted within 12 months of operation. This testing requirement is the same as the testing requirement established in PTI P0110069 and does not require that a second test be performed.

*(Emissions units P055, P102, P177 and P402 are identical emissions units. The permittee may stack test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.)

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulate emissions and opacity in b)(1) for the control device. The secondary purpose of this testing is to verify the current particulate emission factors or establish new emission factors to be used to demonstrate compliance with the emission limits.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate(s): Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE. Visible emission readings, using USEPA Method 9, shall be performed during each test run for the fugitive dust emissions and the emissions from the internal chamber exhaust.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

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

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0110069]

g) Miscellaneous Requirements

(1) None.

29. P402, Furnace #13 Soaker

Operations, Property and/or Equipment Description:

Building 150, 16.75 mmBtu/hr, indirect heat, natural gas-fired soaker furnace (number 13), with a maximum process weight rate of 75,000 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger (Particulate emissions (PE) are controlled by a reverse air baghouse.).

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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 3745-17-07(A)(1)	Visible particulate emissions from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
b.	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
c.	OAC rule 3745-17-08(B)	See b)(2)a.
d.	OAC rule 3745-17-10(B)(1)	Particulate emissions (PE) from the gas burner flue gas exhaust shall not exceed 0.020 lb/mmBtu of actual heat input.
e.	OAC rule 3745-17-11(B)	Particulate emissions (PE) shall not exceed 0.551 lb/hr (based upon Table I) from the control device.

(2) Additional Terms and Conditions

a. The permittee shall employ reasonably available control measures (RACM) for this emissions unit that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and

placing bags on load cars or trays to introduce the hydrogen scavenger into the furnace or the oven.

b. Because this emissions unit is fired only with natural gas, there is no applicable SO_2 emission limitation from OAC rule 3745-18.

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

c) Operational Restrictions

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

[Authority for term: OAC rule 3745-77-07(A)(1)]

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.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall collect, record and maintain the following information each month this emissions unit is in operation:

a. the scavenger usage for this emissions unit, in lbs;

b. the PE generated by this emissions unit, i.e., (a) x (0.175 lb of PE/lb scavenger*) x (1 - fractional control efficiency for control device), in lbs of PE;

c. the operating hours of this emissions unit; and

d. the actual average hourly PE rate for this emissions unit, i.e., (b)/(c), in lbs of PE/hr.

NOTE: See f)(1)d. regarding the record keeping applicability.

*This emission factor is based on prior emission testing; may be updated based on additional emission tests performed in accordance with f)(2) below.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing 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. the total duration of any visible emission incident;

c. any corrective actions taken to eliminate the visible emissions;

d. whether the emissions are representative of normal operations; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of fugitive dust observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) 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 emission incident; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of stack observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 2.0 to 14.0 inches of water.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) The permittee shall properly operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis when the emissions unit is operating. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

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

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

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

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that

determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

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

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

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

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

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Cleveland Division of Air Quality (Cleveland DAQ). 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 a minor permit modification.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland DAQ within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any emissions of fugitive dust were observed from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify the following:

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

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

c. each incident of deviation described in e)(4)a. (above) where a prompt investigation was not conducted;

d. each incident of deviation described in e)(4)a. where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in e)(4)a. where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall submit quarterly deviation (or excursion) reports to the Cleveland DAQ that identify each month during which the average hourly PE rate in lbs/hr exceeded the limit in b)(1).

The quarterly deviation (excursion) reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. <u>Emission Limitation</u>:
Visible particulate emissions from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
Compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit. This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:
Particulate emissions (PE) from the gas burner flue gas exhaust shall not exceed 0.020 lb/mmBtu of actual heat input.

Applicable Compliance Method:
When burning natural gas, compliance with this emission limitation may be demonstrated by multiplying the emission factor from the USEPA reference document AP-42, Fifth Edition or the most recent edition of AP-42, Compilation of Air Pollutant Emission Factors, Section 1.4, Table 1.4-2 (7/98) for filterable particulates in natural gas combustion (1.9 lbs of PE/mmcu. ft.) and dividing by the gross heating value of natural gas (1,000 Btu/cu. ft.).

Actual PE, lbs/mmBtu = (1.9 lbs of PE/mm cu. ft.) / (1,000 Btu/cu. ft.) = 0.0019 lb of PE/mmBtu

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with the appropriate methods found in 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:
Particulate emissions (PE) shall not exceed 0.551 lb/hr (based upon Table I) from the control device.

Applicable Compliance Method:
Compliance may be determined pursuant to the monitoring and record keeping in d). A PE factor in lb PE/lb hydrogen scavenger was developed by the permittee from stack test emission data. Other emission factors that are generated from stack test emission data may be used with prior approval of the Cleveland DAQ.

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly hydrogen scavenger (AFB) material usage rate multiplied by the appropriate PE emission factor for the AFB material employed cannot exceed the allowable PE limitation.

If compliance cannot be demonstrated through this calculation method using the maximum AFB material usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual AFB material usage rates.

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with USEPA Methods 1 through 5 in 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

* Emissions units P055, P102, P177 and P402 are identical emissions units. The permittee may stack test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.

The emission testing shall be conducted within 12 months of permit issuance for one of the following identical emissions units P055, P102, P177 and P402.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulate emissions in b)(1) for the control device. The secondary purpose of this testing is to verify the current particulate emission factors or establish new emission factors to be used to demonstrate compliance with the emission limits.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate(s): Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE. Visible emission readings, using USEPA Method 9, shall be performed during each test run for the fugitive dust emissions and the emissions from the internal chamber exhaust.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

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

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) P402 was installed in 1963. The reverse air baghouse was installed in 1980. The reverse air baghouse was replaced with another baghouse in 1996 which share controls with emissions unit P102.

P402 is a stack and a fugitive dust source.

[Authority for term: OAC rule 3745-77-07(C)(1)]

30. P432, Torch Pit #2

Operations, Property and/or Equipment Description:

Building 206, acetylene arc cutting system - torch pit number 2 (east) (Particulate emissions (PE) are controlled by a positive pressure, pulse-jet baghouse.).

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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) (PTI P0115808 issued final April 28,2014)	See b)(2)a. below.
b.	OAC rule 3745-17-07(A)(1)	The visible particulate emission limitation specified by this rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-11(B)	The particulate emission limitation specified by this rule is less stringent than the particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-77-07(B)	PM_{10} emissions shall not exceed 2.0 lbs/hr and 8.76 tons per year. See b)(2)c. below.

(2) Additional Terms and Conditions

a. Particulate emissions (PE) shall not exceed 0.01 gr/DSCF and 3.43 lbs/hr, visible particulate emissions shall not exceed 5% opacity, as a six-minute average, and

there shall be no objectionable odors in any exhaust gases. (DSCF is dry standard cubic foot and gr is grain or grains.)

PE shall not exceed 15 tons per year.
The PM_{10} emission limitation established by this rule is less stringent than the PM_{10} emission limitation established pursuant to OAC rule 3745-77-07(B).
PM_{10} is defined in OAC rule 3745-17-01(B)(26).

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

c. This emission limit is based on air dispersion modeling conducted in August of 2006 to determine and maintain compliance with the 24-hour and annual PM_{10} National Ambient Air Quality Standards (NAAQS).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 2.0 to 14.0 inches of water.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall properly operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis when the emissions unit is operating. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

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

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

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

e. the findings and recommendations.

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

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

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

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

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

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

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Cleveland Division of Air Quality (Cleveland DAQ). 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 a minor permit modification.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) 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 baghouse 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 emission incident; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of stack observations from weekly to monthly for this emissions unit if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the baghouse serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit the quarterly deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) in accordance with the Standard Terms and Conditions of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify the following:

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

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

c. each incident of deviation described in e)(3)a. (above) where a prompt investigation was not conducted;

d. each incident of deviation described in e)(3)a. where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in e)(3)a. where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
Visible particulate emissions from the dust collector baghouse stack shall not exceed 5% opacity, as a six-minute average.

Applicable Compliance Method:
Compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

b. Emission Limitation:
PE shall not exceed 0.01 grains/DSCF.

PE shall not exceed 3.43 lbs/hr.

Applicable Compliance Method:

Compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10). See f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

c. Emission Limitation:
PE shall not exceed 15 tons per year.

Applicable Compliance Method:
Compliance with the annual limitations shall be based upon the monitoring and record keeping requirements in d) above.

The annual emission limitation was established by multiplying the pound per hour allowable for each pollutant by the maximum operating schedule of 8,760 hours per year and dividing by 2,000 pounds per ton. Therefore, provided compliance is maintained with the pounds per hour limitation, compliance with the annual emission limitation shall also be demonstrated.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI P0115808]

d. Emission Limitation:
PM_{10} emissions shall not exceed 2.0 lbs/hr.

Applicable Compliance Method:
If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 201 for PM_{10} of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10). See f)(2) below.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:
PM_{10} emissions shall not exceed 8.76 tons per year.

Applicable Compliance Method:
Compliance with the annual limitations shall be based upon the monitoring and record keeping requirements in d)(3).

The annual emission limitation was established by multiplying the pound per hour allowable for each pollutant by the maximum operating schedule of 8,760 hours per year and dividing by 2,000 pounds per ton. Therefore, provided compliance is maintained with the pounds per hour limitation, compliance with the annual emission limitation shall also be demonstrated.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall conduct, or have conducted, emission testing for P432 in accordance with the requirements below.

The emission testing shall be within 12 months of permit issuance.

The most recent emission testing for P432 was conducted on April 24, 2014. Method 5 results were 0.71 lb/hr; Method 201A and 202 results were 0.74 lb/hr total PM_{10}; and, Method 9 results were 0% opacity as a 6 minute average.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PE and PM_{10} in b)(1).

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate(s): Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE and Method 201 or 201A for PM_{10}. Visible emission readings, using USEPA Method 9, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

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

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests.

g) Miscellaneous Requirements

(1) P432 and the baghouse were installed in 1991.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) If Alcoa chooses to revisit the PM_{10} modeling in the future, it will only be necessary to address the 24-hour PM_{10} NAAQS since the annual PM_{10} standard has been eliminated.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) Superseded permit PTI #13-2232 issued April 10, 1991.

[Authority for term: OAC rule 3745-77-07(C)(1)]

31. Emissions Unit Group - Bldg 101 Gas Preheat Furnaces: F003, F004, F006, F007, F008

EU ID	Operations, Property and/or Equipment Description
F003	Building 101, 0.25 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 2007), operating at a maximum process weight rate of 2,000 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO_2) are fugitive emissions.). F003 was installed in March 1941 and is a fugitive source.
F004	Building 101, 0.50 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 2502), operating at a maximum process weight rate of 2,500 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO_2) are fugitive emissions.). F004 was installed in January 1941 and is a fugitive source.
F006	Building 101, 1.86 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 4504), operating at a maximum process weight rate of 4,500 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO_2) are fugitive emissions.). F006 was installed in September 1943 and is a fugitive source.
F007	Building 101, 0.45 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 4505), operating at a maximum process weight rate of 4,500 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO_2) are fugitive emissions.). F007 was installed in April 1942 and is a fugitive source.
F008	Building 101, 1.00 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 4506), operating at a maximum process weight rate of 4,500 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO_2) are fugitive emissions.). F008 was installed in January 1943 and is a fugitive source.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) 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 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average, for each emissions unit.
b.	OAC rule 3745-17-08(B)	See b)(2)a.
c.	OAC rule 3745-18-06(E)	See b)(2)b.

(2) Additional Terms and Conditions

a. The permittee shall employ reasonably available control measures (RACM) for each of these emissions units that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

b. The sulfur dioxide emissions from each of these emissions units are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of these emissions units' total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into these emissions units are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for these emissions units.

c) Operational Restrictions

(1) The permittee shall burn only natural gas in each of these emissions units.

[Authority for term: OAC rule 3745-77-07(A)(1)]

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 each of these emissions units.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall perform weekly checks, when each of these emissions units is in operation, for any visible emissions of fugitive dust from the building housing these emissions units. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident;

c. any corrective actions taken to eliminate the visible emissions;

d. whether the emissions are representative of normal operations; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of fugitive dust observations from weekly to monthly for any of these emissions units if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each day when a fuel other than natural gas was burned in any of these emissions units. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing these emissions units and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average, for each emissions unit.

Applicable Compliance Method:
Compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit. This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

32. Emissions Unit Group - Bldg 111 Gas Preheat Furnaces: F010, F011, F012, F015, F016

EU ID	Operations, Property and/or Equipment Description
F010	Building 111, 12.00 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 12001), operating at a maximum process weight rate of 12,000 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO_2) are fugitive emissions.). F010 installed in September 1952 and is a fugitive source.
F011	Building 111, 2.40 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 12002), operating at a maximum process weight rate of 12,000 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO_2) are fugitive emissions.). F011 was installed in September 1952 and is a fugitive source.
F012	Building 111, 12.00 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 12003), operating at a maximum process weight rate of 12,000 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO_2) are fugitive emissions.). F012 was installed in September 1952 and is a fugitive source.
F015	Building 111, 3.20 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number G-1), operating at a maximum process weight rate of 12,000 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO_2) are fugitive emissions.). F015 was installed in July 1953 and is a fugitive source.
F016	Building 111, 3.20 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number G-2), operating at a maximum process weight rate of 12,000 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO_2) are fugitive emissions.). F016 was installed in July 1953 and is a fugitive source.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) 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 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average, for each emissions unit.
b.	OAC rule 3745-17-08(B)	See b)(2)a.
c.	OAC rule 3745-18-06(E)	See b)(2)b.

(2) Additional Terms and Conditions

a. The permittee shall employ reasonably available control measures (RACM) for each of these emissions units that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

b. The sulfur dioxide emissions from each of these emissions units are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of these emissions units' total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into these emissions units are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for these emissions units.

c) Operational Restrictions

(1) The permittee shall burn only natural gas in each of these emissions units.

[Authority for term: OAC rule 3745-77-07(A)(1)]

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 each of these emissions units.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall perform weekly checks, when each of these emissions units is in operation, for any visible emissions of fugitive dust from the building housing these emissions units. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident;

c. any corrective actions taken to eliminate the visible emissions;

d. whether the emissions are representative of normal operations; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of fugitive dust observations from weekly to monthly for any of these emissions units if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each day when a fuel other than natural gas was burned in any of these emissions units. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing these emissions units and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average, for each emissions unit.

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit. This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

33. Emissions Unit Group - Bldg 114 Gas Preheat Furnaces: F017, F019, F020

EU ID	Operations, Property and/or Equipment Description
F017	Building 114, 0.80 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 2002), operating at a maximum process weight rate of 2,000 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO_2) are fugitive emissions.). F017 was installed in February 1941 and is a fugitive source.
F019	Building 114, 8.00 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 4509), operating at a maximum process weight rate of 4,500 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO_2) are fugitive emissions.). F019 installed in September 1942 and is a fugitive source.
F020	Building 114, 1.50 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 4513), operating at a maximum process weight rate of 4,500 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO_2) are fugitive emissions.). F020 was installed in January 1943 and is a fugitive source.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) 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 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average, for each emissions unit.
b.	OAC rule 3745-17-08(B)	See b)(2)a.
c.	OAC rule 3745-18-06(E)	See b)(2)b.

(2) Additional Terms and Conditions

a. The permittee shall employ reasonably available control measures (RACM) for each of these emissions units that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

b. The sulfur dioxide emissions from each of these emissions units are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of these emissions units' total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into these emissions units are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for these emissions units.

c) Operational Restrictions

(1) The permittee shall burn only natural gas in each of these emissions units.

[Authority for term: OAC rule 3745-77-07(A)(1)]

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 each of these emissions units.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall perform weekly checks, when each of these emissions units is in operation, for any visible emissions of fugitive dust from the building housing these emissions units. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident;

c. any corrective actions taken to eliminate the visible emissions;

d. whether the emissions are representative of normal operations; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of fugitive dust observations from weekly to monthly for any of these emissions units if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each day when a fuel other than natural gas was burned in any of these emissions units. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing these emissions units and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average, for each emissions unit.

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit. This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

34. Emissions Unit Group - Bldg 120 Heat Treat Furnaces: P003, P004

EU ID	Operations, Property and/or Equipment Description
P003	Building 120, 2.97 mmBtu/hr, indirect heat, natural gas-fired heat treat furnace (number 2502) operating at a maximum process weight rate of 2,500 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger; also 4.56 mmBtu/hr, direct heat, natural gas-fired age oven (number 2502) with a maximum process weight rate of 2,500 lbs/hr of metal. The P003 heat treat was installed in 1952 and is a fugitive emission source. The P003 age oven was installed in 1952 and is a fugitive emission source. (P003 has no stacks and therefore is not suitable for stack testing.)
P004	Building 120, 2.97 mmBtu/hr, indirect heat, natural gas-fired heat treat furnace (number 2503) operating at a maximum process weight rate of 2,500 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger; also 4.56 mmBtu/hr, direct heat, natural gas-fired age oven (number 2503) with a maximum process weight rate of 2,500 lbs/hr of metal. The P004 heat treat was installed in 1952 and is a fugitive emission source. The P004 age oven was installed in 1952 and is a fugitive emission source. (P004 has no stacks and therefore is not suitable for stack testing.)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) 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 3745-17-07(B)(1)	Visible emissions of fugitive dust from the heat treat furnace shall not exceed 20% opacity as a 3-minute average, for each emissions unit.
b.	OAC rule 3745-17-08(B)	See b)(2)a.
c.	OAC rule 3745-18-06(E)	See b)(2)b.

(2) Additional Terms and Conditions

a. The permittee shall employ reasonably available control measures (RACM) for each of these emissions units that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

b. The sulfur dioxide emissions from each of these emissions units are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of these emissions units' total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into these emissions units are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for these emissions units.

c) Operational Restrictions

(1) The permittee shall burn only natural gas in each of these emissions units.

[Authority for term: OAC rule 3745-77-07(A)(1)]

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 each of these emissions units.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall perform weekly checks, when each of these emissions units is in operation, for any visible emissions of fugitive dust from the building housing these emissions units. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident;

c. any corrective actions taken to eliminate the visible emissions;

d. whether the emissions are representative of normal operations; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of fugitive dust observations from weekly to monthly for any of these emissions units if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each day when a fuel other than natural gas was burned in any of these emissions units. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing these emissions units and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average, for each emissions unit.

Applicable Compliance Method:
Compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit. This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

35. Emissions Unit Group - Bldg 206 Electric Heat Treat Furnaces: P047, P048, P049

EU ID	Operations, Property and/or Equipment Description
P047	Building 206, Swindell, electric heat treat furnace (number 2), operating at a maximum process weight rate of 4,500 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger (Particulate emissions (PE) are exhausted through a vertical stack.). P047 was installed in June 1955. P047 is both a stack source and a fugitive dust source.
P048	Building 206, Swindell, electric heat treat furnace (number 3), operating at a maximum process weight rate of 4,500 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger (Particulate emissions (PE) are exhausted through a vertical stack.). P048 was installed in June 1955. P048 is both a stack source and a fugitive dust source.
P049	Building 206, Swindell, electric heat treat furnace (number 4), operating at a maximum process weight rate of 4,500 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger (Particulate emissions (PE) are exhausted through a vertical stack.). P049 was installed in June 1955. P049 is both a stack source and a fugitive dust source.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) 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 3745-17-07(A)(1)	Visible particulate emissions from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule, for each emissions unit.
b.	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average, for each emissions unit.
c.	OAC rule 3745-17-08(B)	See b)(2)a.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-11(B) Table I	Particulate emissions (PE) shall not exceed 0.551 lb/hr, for each emissions unit.

(2) Additional Terms and Conditions

a. The permittee shall employ reasonably available control measures (RACM) for each of these emissions units that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on load cars or trays to introduce the hydrogen scavenger into the furnace or the oven.

c) Operational Restrictions

(1) The permittee shall only use electrical energy in each of these emissions units.

[Authority for term: OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain records for each day during which a heat source other than electric heat was employed in each of these emissions units.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall collect, record and maintain the following information each month each emissions unit is in operation:

a. the scavenger usage for each of these emissions units, in lbs;

b. the PE generated by each of these emissions units, i.e., (a) x 0.175 lb of PE/lb scavenger*, in lbs of PE;

c. the operating hours of each of these emissions units; and

d. the actual average hourly PE rate for each of these emissions units, i.e., (b)/(c), in lbs of PE/hr.

NOTE: See f)(1)c. regarding the record keeping applicability.

*This emission factor is based on prior emission testing; may be updated based on additional emission tests performed in accordance with f)(1) in any of the identical emissions units P047, P048, and P049.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing these emissions units. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident;

c. any corrective actions taken to eliminate the visible emissions;

d. whether the emissions are representative of normal operations; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of fugitive dust observations from weekly to monthly for any of these emissions units if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) 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(s) serving these emissions units. 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 emission incident; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of stack observations from weekly to monthly for any of these emissions units if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (or excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each month during which the actual average hourly PE rate (in lbs/hr), for each emissions unit, exceeded the limit in b)(1).

The quarterly deviation (excursion) reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible particulate emissions were observed from the stack serving these emissions units and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing these emissions units and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
Visible particulate emissions from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule, for each emissions unit.

Applicable Compliance Method:
Compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average, for each emissions unit.

Applicable Compliance Method:
Compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit. This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:
Particulate emissions (PE) shall not exceed 0.551 lb/hr, for each emissions unit.

Applicable Compliance Method:
Compliance may be determined pursuant to the monitoring and record keeping in d)(2).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly hydrogen scavenger (AFB) material usage rate multiplied by the appropriate PE emission factor for the AFB material employed cannot exceed the allowable PE limitation.

If compliance cannot be demonstrated through this calculation method using the maximum AFB material usage rate, then the permittee shall demonstrate

compliance through the record keeping as noted above using actual AFB material usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

36. Emissions Unit Group - Bldg 206 Gas Preheat Furnaces: F023, F024, F025, F026

EU ID	Operations, Property and/or Equipment Description
F023	Building 206, 2.32 mmBtu/hr, direct heat, natural gas-fired preheat furnace (R & S reheat furnace number 1), operating at a maximum process weight rate of 12,000 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO_2) are fugitive emissions.). F023 was installed in February 1955 and is a fugitive source.
F024	Building 206, 1.20 mmBtu/hr, direct heat, natural gas-fired preheat furnace (R & S reheat furnace number 3), operating at a maximum process weight rate of 12,000 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO_2) are fugitive emissions.). F024 was installed in February 1955 and is a fugitive source.
F025	Building 206, 15.00 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 4 Salem), operating at a maximum process weight rate of 16,000 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO_2) are fugitive emissions.). F025 was installed in September 1969 and is a fugitive source.
F026	Building 206, 13.80 mmBtu/hr, direct heat, natural gas-fired preheat furnace (number 5 Salem), operating at a maximum process weight rate of 16,000 lbs/hr of metal and 5 lbs/hr of hydrogen scavenger (All particulate emissions (PE) and sulfur dioxide emissions (SO_2) are fugitive emissions.). F026 was installed in September 1969 and is a fugitive source.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) 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 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average, for each emissions unit.
b.	OAC rule 3745-17-08(B)	See b)(2)a.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-18-06(E)	See b)(2)b.

(2) Additional Terms and Conditions

a. The permittee shall employ reasonably available control measures (RACM) for each of these emissions units that include, but are not limited to: placing the hydrogen scavenger (powder material which volatilizes in the furnace or oven) in bags; and placing bags on a moving grate to introduce the hydrogen scavenger into the furnace or the oven.

b. The sulfur dioxide emissions from each of these emissions units are due solely to the combustion of natural gas. Pursuant to OAC rule 3745-18-01(B)(13), the natural gas and the combustion air are not considered to be part of these emissions units' total process weight which is used in establishing the allowable sulfur dioxide emission limitation. The only other materials introduced into these emissions units are the metal pieces that are to be pre-heated, heated or reheated. The total weight of the metal pieces could be used to establish the sulfur dioxide allowable emission limitation. However, using the total weight of the metal pieces to establish the sulfur dioxide allowable emission limitation would yield a very high allowable sulfur dioxide emission limitation compared to the sulfur dioxide emissions generated by the combustion of the natural gas. Therefore, a sulfur dioxide emission limitation has not been established for these emissions units.

c) Operational Restrictions

(1) The permittee shall burn only natural gas in each of these emissions units.

[Authority for term: OAC rule 3745-77-07(A)(1)]

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 each of these emissions units.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall perform weekly checks, when each of these emissions units is in operation, for any visible emissions of fugitive dust from the building housing these emissions units. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident;

c. any corrective actions taken to eliminate the visible emissions;

d. whether the emissions are representative of normal operations; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of fugitive dust observations from weekly to monthly for any of these emissions units if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each day when a fuel other than natural gas was burned in any of these emissions units. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing these emissions units and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average, for each emissions unit.

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible emission observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit. This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

37. Emissions Unit Group - X Plant 4,000 Ton Presses: P155, P156

EU ID	Operations, Property and/or Equipment Description
P155	X Plant, number 4001, a 4,000 ton hydraulic press complex for the production of metal forgings, operating at a maximum batch process weight rate of 8,000 lbs/hr of metal. P155 and the coated baghouse were installed in January 1996.
P156	X Plant, number 4002, a 4,000 ton hydraulic press complex for the production of metal forgings, operating at a maximum batch process weight rate of 8,000 lbs/hr of metal. P156 and the coated baghouse were installed in January 1996.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) 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) (PTI #13-3067 issued March 20, 1996)	Visible emissions of fugitive dust shall not exceed 5% opacity, as a 3-minute average, for each emissions unit. Particulate emissions (PE) shall not exceed 1.3 lbs/hr and 0.01 grain/dry standard cubic foot (gr/DSCF) outlet emission rate, for each emissions unit. Particulate emissions (PE) shall not exceed 5.65 tons per year, for each emissions unit. Volatile organic compounds (VOC) emissions shall not exceed 2.74 tons per year, for each emissions unit. See b)(2)a. This rule also includes compliance with the requirements of OAC rules 3745-17-07(A)(1), 3745-17-08(B) and 3745-21-07(M)(4).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, for each emissions unit.
c.	OAC rule 3745-17-07(B)(1)	The fugitive dust emission limitation specified by this rule is less stringent than the fugitive dust emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-08(B)	See b)(2)b.
e.	OAC rule 3745-17-11(B)	The particulate emission limitation specified by this rule is less stringent than the particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
f.	OAC rule 3745-21-07(M)(4)	For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by each of these emissions units. See b)(2)c.
g.	OAC rule 3745-21-07(M)	For the lubricants that are not exposed to temperatures >220 degrees F or flame, there are no applicable requirements from this rule.

(2) Additional Terms and Conditions

a. When the oil-based lubricant is applied, the air pollution control equipment shall have at least 90% capture efficiency and at least 98% control efficiency.

When water-based lubricants are utilized, exhaust from these sources may be vented inside the building or directly to the atmosphere. When oil-based lubricants are utilized, exhaust from these sources shall be captured by a negative pressure hood and vented through a baghouse.

b. The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, vent and control the captured particulate emissions in the coated baghouse. The collection efficiency shall be sufficient to minimize or eliminate visible particulate emissions at the point(s) of capture to the extent possible with good engineering design.

c. The Ohio EPA has determined that OAC rule 3745-21-07(M)(4) is an applicable requirement for each of these emissions units for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(M)(4) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(M) pursuant to OAC rule 3745-21-07(M)(5)(c) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

d. As specified in OAC rule 3745- 21-07(M)(5)(d), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745- 21-07(M):

i. the volatile content of the lubricant consists only of water and liquid organic material; and

ii. the liquid organic material comprises not more than twenty per cent, by volume, of said volatile content.

e. The emissions from each of these emissions units shall be vented to the baghouse at all times each emissions unit is in operation.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall record the following information for each day when each of these emissions units is in operation:

a. the company identification of each lubricant employed;

b. the amount of each lubricant employed, in pounds;

c. the PE factor for each lubricant employed, in pounds of PE per pound of lubricant;

d. the total PE rate for all lubricants employed, in pounds of PE per day, calculated as the sum of (c) x (d) for all lubricants employed;

e. the total number of hours each emissions unit was in operation; and

f. the average hourly PE emission rate calculated as (e)/(f), in lbs/hr (average).

NOTE: See f)(1)e. regarding the record keeping applicability.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall maintain the following information for each of these emissions units:

a. the company identification for each lubricant employed and documentation as to whether or not:

i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);

ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(M) as specified in b)(2)d.; and

iii. the lubricant comes in contact with a flame.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745- 21-07(M), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745- 21-07(M)(4) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours each emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

NOTE: See f)(1)a. and f)(1)b. regarding the record keeping applicability.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors.

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particulate emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. Emission testing will not be required for any new lubricants, if the OC and PE content of the proposed lubricant is less than the 'worst-case' OC-based or water-based lubricant.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall collect, record and maintain the following information each calendar year for each of these emissions units:

a. summation of actual daily VOC emission rate, in lbs;

b. conversion factor, 1 ton/2,000 lbs; and

c. the actual annual VOC emission rate, i.e., (b) x (c), tons of VOC per year.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall perform weekly checks, when each of these emissions units is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving these emissions units. 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 emission incident; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of stack observations from weekly to monthly for any of these emissions units if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) The permittee shall perform weekly checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the building housing these emissions units. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident

c. any corrective actions taken to eliminate the visible emissions;

d. whether the emissions are representative of normal operations; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of fugitive dust observations from weekly to monthly for any of these emissions units if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(8) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(9) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 1.0 to 6.0 inches of water.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(10) The permittee shall properly operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis when the emissions unit is operating. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

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

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

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

e. the findings and recommendations.

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

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

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

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

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

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

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Cleveland Division of Air Quality (Cleveland DAQ). 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 a minor permit modification.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) For all the days when the record keeping in d)(3) was required, the permittee shall submit quarterly deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) For all the days when the record keeping in d)(3) was required, the permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly deviation (or excursion) reports to the Cleveland DAQ that identify each day during which the actual average hourly PE rate exceeded the limit in b)(1) and the actual average hourly PE rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit the quarterly deviation (excursion) reports to the Cleveland DAQ in accordance with the Standard Terms and Conditions of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall submit annual reports to the Cleveland DAQ that specify the total emissions of PE and VOC from each of these emissions units for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for these emissions units in the annual Fee Emission Report.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible particulate emissions were observed from the stack(s) serving these emissions units and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing these emissions units and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(8) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify the following:

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

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

c. each incident of deviation described in e)(8)a. (above) where a prompt investigation was not conducted;

d. each incident of deviation described in e)(8)a. where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in e)(8)a. where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions, for each emissions unit.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(2), d)(3) and d)(4).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate OC emission factor for the lube material employed cannot exceed the allowable OC limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see f)(2) below).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI #13-3067]

b. Emission Limitation:
For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions, for each emissions unit.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(2), d)(3) and d)(4).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum daily lube usage rate multiplied by the appropriate OC emission factor for the lube material employed cannot exceed the allowable OC limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI #13-3067]

c. Emission Limitation:
Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, for each emissions unit.

Applicable Compliance Method:
Compliance may be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI #13-3067]

d. Emission Limitation:
Visible emissions of fugitive dust shall not exceed 5% opacity, as a 3-minute average, for each emissions unit.

Applicable Compliance Method:
Compliance may be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving these emissions units. This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI #13-3067]

e. Emission Limitation:
The particulate emission (PE) concentration shall be less than 0.01 gr/DSCF outlet emission rate and the PE rate shall not exceed 1.3 lbs/hr (at 40,000 ACFM), for each emissions unit.

When the oil-based lubricant is applied, the air pollution control equipment shall have at least 90% capture efficiency and at least 98% control efficiency.

Applicable Compliance Method:
Compliance with the above particulate emission limitation may be determined using the following calculation:

Actual PE concentration, gr/DSCF = (Actual hourly PE rate, lbs PE/hr) x (7,000 gr/lb) x (hr/60 minutes) / (air volume flow rate, DSCFM)

Air volume flow rate, DSCFM = ACFM x (1 - moisture in air) x TCF x PCF

TCF = (460 + 70 degrees Fahrenheit) / (460 + air temperature, degrees Fahrenheit)

PCF = (actual stack gas pressure, mm Hg) / (760 mm Hg)

Where:
DSCF = dry standard cubic feet
DSCFM = dry standard cubic feet per minute
ACFM = actual cubic feet per minute
gr = grain
TCF = stack gas temperature correction factor
PCF = stack gas pressure correction factor

Or, compliance with the above limitations may be based upon the monitoring and record keeping in d)(1).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate PE emission factor for the lube material employed cannot exceed the allowable PE limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with USEPA Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI #13-3067]

f. Emission Limitation:
Particulate emissions (PE) shall not exceed 5.65 tons per year, for each emissions unit.

Applicable Compliance Method:
Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8,760 hrs/year, and then dividing by 2,000 lbs/ton).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI #13-3067]

g. Emission Limitation:
Volatile organic compound (VOC) emissions shall not exceed 2.74 tons per year, for each emissions unit.

Applicable Compliance Method:
Compliance with the annual limitation shall be based upon the monitoring and record keeping in d)(5).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI #13-3067]

(2) The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

* Emissions units P155, P156, P157, and P158 are identical processes. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.

The emission testing shall be conducted within 36 months of permit issuance for one of the following identical emissions units P155, P156, P157, and P158.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and the control efficiency requirement for OC as specified in b)(1). Separate emission tests shall be performed while using worst case lubricants that are exposed to temperatures >220 degrees F or flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 9, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

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

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI #13-3067]

g) Miscellaneous Requirements

(1) The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

[Authority for term: OAC rule 3745-77-07(C)(1)]

38. Emissions Unit Group - Y Plant 5,000 Ton Presses: P157, P158

EU ID	Operations, Property and/or Equipment Description
P157	Y Plant, number 5001, a 5,000 ton hydraulic press complex for the production of metal forgings, operating at a maximum batch process weight rate of 8,000 lbs/hr of metal. P157 and the coated baghouse were installed in September 1996.
P158	Y Plant, number 5002, a 5,000 ton hydraulic press complex for the production of metal forgings, operating at a maximum batch process weight rate of 8,000 lbs/hr of metal. P158 and the coated baghouse were installed in September 1996.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) 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) (PTI #13-3149 issued November 14, 1996)	Visible emissions of fugitive dust shall not exceed 5% opacity, as a 3-minute average, for each emissions unit. Particulate emissions (PE) shall not exceed 1.4 lbs/hr and 0.01 grain/dry standard cubic foot (gr/DSCF) outlet emission rate, for each emissions unit. Particulate emissions (PE) shall not exceed 6.15 tons per year, for each emissions unit. Volatile organic compound (VOC) emissions shall not exceed 2.74 tons per year, for each emissions unit. See b)(2)a. This rule also includes compliance with the requirements of OAC rules 3745-17-07(A)(1), 3745-17-08(B) and 3745-21-07(M)(4).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, for each emissions unit.
c.	OAC rule 3745-17-07(B)(1)	The fugitive emission limitation specified by this rule is less stringent than the fugitive emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-08(B)	See b)(2)b.
e.	OAC rule 3745-17-11(B)	The particulate emission limitation specified by this rule is less stringent than the particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
f.	OAC rule 3745-21-07(M)(4)	For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by each of these emissions units. See b)(2)c.
g.	OAC rule 3745-21-07(M)	For the lubricants that are not exposed to temperatures >220 degrees F or flame, there are no applicable requirements from this rule.

(2) Additional Terms and Conditions

a. When the oil-based lubricant is applied, the air pollution control equipment shall have at least 90% capture efficiency and at least 98% control efficiency.

When water-based lubricants are utilized, exhaust from these sources may be vented inside the building or directly to the atmosphere. When oil-based lubricants are utilized, exhaust from these sources shall be captured by a negative pressure hood and vented through a baghouse.

b. The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, vent and control the captured particulate emissions in the coated baghouse. The collection efficiency shall be sufficient to minimize or eliminate visible particulate emissions at the point(s) of capture to the extent possible with good engineering design.

c. The Ohio EPA has determined that OAC rule 3745-21-07(M)(4) is an applicable requirement for each of these emissions units for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(M)(4) is an applicable requirement when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(M) pursuant to OAC rule 3745-21-07(M)(5)(c) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

d. As specified in OAC rule 3745- 21-07(M)(5)(d), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745- 21-07(M):

i. the volatile content of the lubricant consists only of water and liquid organic material; and

ii. the liquid organic material comprises not more than twenty per cent, by volume, of said volatile content.

e. The emissions from each of these emissions units shall be vented to the baghouse at all times each emissions unit is in operation.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall record the following information for each day when each of these emissions units is in operation:

a. the company identification of each lubricant employed;

b. the amount of each lubricant employed, in pounds;

c. the PE factor for each lubricant employed, in pounds of PE per pound of lubricant;

d. the total PE rate for all lubricants employed, in pounds of PE per day, calculated as the sum of (c) x (d) for all lubricants employed;

e. the total number of hours each emissions unit was in operation; and

f. the average hourly PE emission rate calculated as (e)/(f), in lbs/hr (average).

NOTE: See f)(1)e. regarding the record keeping applicability.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall maintain the following information for each of these emissions units:

a. the company identification for each lubricant employed and documentation as to whether or not:

i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);

ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(M) as specified in b)(2)d.; and

iii. the lubricant comes in contact with a flame.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745-21-07(M)(4) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours each emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

NOTE: See f)(1)a. and f)(1)b. regarding the record keeping applicability.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors.

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particulate emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE. Emission testing will not be required for any new lubricants, if the OC and PE content of the proposed lubricant is less than the 'worst-case' OC-based or water-based lubricant.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall collect, record and maintain the following information each calendar year for each of these emissions units:

a. summation of actual daily VOC emission rate, in lbs;

b. conversion factor, 1 ton/2,000 lbs; and

c. the actual annual VOC emission rate, i.e., (b) x (c), tons of VOC per year.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall perform weekly checks, when each of these emissions units is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving these emissions units. 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 emission incident; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of stack observations from weekly to monthly for any of these emissions units if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) The permittee shall perform weekly checks, when each of these emissions units is in operation, for any visible emissions of fugitive dust from the building housing these emissions units. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident;

c. any corrective actions taken to eliminate the visible emissions;

d. whether the emissions are representative of normal operations; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of fugitive dust observations from weekly to monthly for any of these emissions units if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(8) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(9) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 1.0 to 6.0 inches of water.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(10) The permittee shall properly operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis when the emissions unit is operating. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

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

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

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

e. the findings and recommendations.

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

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

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

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

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

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

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Cleveland Division of Air Quality (Cleveland DAQ). 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 a minor permit modification.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) For all the days when the record keeping in d)(3) was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) For all the days when the record keeping in d)(3) was required, the permittee shall submit quarterly deviation (excursion) reports that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly deviation (or excursion) reports that identify each day during which the actual average hourly PE rate exceeded the limit in b)(1) and the actual average hourly PE rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit the quarterly deviation (excursion) reports in accordance with the Standard Terms and Conditions of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall submit annual reports that specify the total emissions of PE and VOC from each of these emissions units for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied

by including and identifying the specific emission data for these emissions unit in the annual Fee Emission Report.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack(s) serving these emissions units and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing these emissions units and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(8) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify the following:

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

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

c. each incident of deviation described in e)(8)a. (above) where a prompt investigation was not conducted;

d. each incident of deviation described in e)(8)a. where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in e)(8)a. where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions, for each emissions unit.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(2), d)(3) and d)(4).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate OC emission factor for the lube material employed cannot exceed the allowable OC limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see f)(2)).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI #13-3149]

b. Emission Limitation:
For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions, for each emissions unit.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(2), d)(3) and d)(4).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum daily lube usage rate multiplied by the appropriate OC emission factor for the lube material employed cannot exceed the allowable OC limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI #13-3149]

c. Emission Limitation:
Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, for each emissions unit.

Applicable Compliance Method:
Compliance may be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI #13-3149]

d. Emission Limitation:
Visible emissions of fugitive dust shall not exceed 5% opacity, as a 3-minute average, for each emissions unit.

Applicable Compliance Method:
Compliance may be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving these emissions units. This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI #13-3149]

e. Emission Limitation:
The particulate emission (PE) concentration shall be less than 0.01 gr/DSCF outlet emission rate and the PE rate shall not exceed 1.4 lbs/hr (at 40,000 ACFM), for each emissions unit.

When the oil-based lubricant is applied, the air pollution control equipment shall have at least 90% capture efficiency and at least 98% control efficiency.

Applicable Compliance Method:
Compliance with the above particulate emission limitation may be determined using the following calculation:

Actual PE concentration, gr/DSCF = (Actual hourly PE rate, lbs PE/hr) x (7,000 gr/lb) x (hr/60 minutes) / (air volume flow rate, DSCFM)

Air volume flow rate, DSCFM = ACFM x (1 - moisture in air) x TCF x PCF

TCF = (460 + 70 degrees Fahrenheit) / (460 + air temperature, degrees Fahrenheit)

PCF = (actual stack gas pressure, mm Hg) / (760 mm Hg)

Where:
DSCF = dry standard cubic feet
DSCFM = dry standard cubic feet per minute
ACFM = actual cubic feet per minute

gr = grain
TCF = stack gas temperature correction factor
PCF = stack gas pressure correction factor

Or, compliance with the above limitations may be based upon the monitoring and record keeping in d)(1).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate PE emission factor for the lube material employed cannot exceed the allowable PE limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, the permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with USEPA Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI #13-3149]

f. Emission Limitation:
Particulate emissions (PE) shall not exceed 6.15 tons per year, for each emissions unit.

Applicable Compliance Method:
Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8,760 hrs/year, and then dividing by 2,000 lbs/ton).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI #13-3149]

g. Emission Limitation:
Volatile organic compound (VOC) emissions shall not exceed 2.74 tons per year, for each emissions unit.

Applicable Compliance Method:
Compliance with the annual limitation shall be based upon the monitoring and record keeping in d)(5).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI #13-3149]

(2) The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

* Emissions units P155, P156, P157, and P158 are identical processes. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.

The emission testing shall be conducted within 36 months of permit issuance for one of the following identical emissions units P155, P156, P157, and P158.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE and the control efficiency requirement for OC as specified in b)(1). Separate emission tests shall be performed while using worst case lubricants that are exposed to temperatures >220 degrees F or flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 9, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

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

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and PTI #13-3149]

g) Miscellaneous Requirements

(1) The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

[Authority for term: OAC rule 3745-77-07(C)(1)]

39. Emissions Unit Group - Bldg 101 Mechanical Presses: P018, P019, P129

EU ID	Operations, Property and/or Equipment Description
P018	Building 101, 1,600 ton Erie mechanical press complex for the production of metal forgings, operating at a maximum batch process weight rate of 2,000 lbs/hr of metal. Emissions are exhausted through a vertical stack. P018 and the water spray tunnel stack were installed in 1957.
P019	Building 101, 4,000 ton Ajax mechanical press complex for the production of metal forgings, operating at a maximum batch process weight rate of 7,000 lbs/hr of metal. Emissions are exhausted through a vertical stack. P019 and the water spray tunnel stack were installed in 1957.
P129	Building 101, number 2503, 2,500 ton mechanical press complex for the production of metal forgings, operating at a maximum batch process weight rate of 4,500 lbs/hr of metal. P129 and the stack were installed in 1963.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) 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 3745-17-07(A)(1)	Visible particulate emissions from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule, for each emissions unit.
b.	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average, for each emissions unit.
c.	OAC rule 3745-17-08(B)	See b)(2)b. below.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-11(B)	See b)(2)a. below.
e.	OAC rule 3745-21-07(M)(4)	For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit, for each emissions unit. See b)(2)c. below.
f.	OAC rule 3745-21-07(M)	For the lubricants that are not exposed to temperatures >220 degrees F or flame, there are no applicable requirements from this rule.
g.	OAC rule 3745-77-07(B)	PM_{10} emissions shall not exceed 6.0 lbs/hr, for each emissions unit. See b)(2)e. below.

(2) Additional Terms and Conditions

a. The uncontrolled mass rate of particulate emissions (PE) from each of these emissions units is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 pounds per hour. Therefore, to ensure that Figure II will not be applicable, the uncontrolled mass rate of PE is limited to less than 10 pounds per hour.

b. The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the captured fugitive dust emissions to the water spray tunnel. 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.

c. The Ohio EPA has determined that OAC rule 3745-21-07(M)(4) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(M)(4) is an applicable requirement when these

lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(M) pursuant to OAC rule 3745-21-07(M)(5)(c) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

d. As specified in OAC rule 3745- 21-07(M)(5)(d), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745- 21-07(M):

i. the volatile content of the lubricant consists only of water and liquid organic material; and

ii. the liquid organic material comprises not more than twenty per cent, by volume, of said volatile content.

e. This emission limit is based on air dispersion modeling conducted in August of 2006 to determine and maintain compliance with the 24-hour and annual PM_{10} National Ambient Air Quality Standards (NAAQS). The PM_{10} emission limit was reduced from 8 lbs/hr to 6 lbs/hr as a result of emissions testing that was conducted in April 2015. See g)(3) below.

c) Operational Restrictions

(1) Only one mechanical press will vent out of each mechanical stack (emissions units P018, P019, and P129) at any one time. This restriction is based on air dispersion modeling conducted in August of 2006 to determine and maintain compliance with the 24-hour and annual PM_{10} National Ambient Air Quality Standards (NAAQS).

[Authority for term: OAC rule 3745-77-07(A)(1)]

(2) Operational hours of each of these emissions units shall be limited to 16 hours per day. During the times of operation, these emission units will be at 95% Operational Availability (OA). These restrictions are based on air dispersion modeling conducted in August of 2006 to determine and maintain compliance with the 24-hour and annual PM_{10} National Ambient Air Quality Standards (NAAQS).

[Authority for term: OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall record the following information for each day when each of these emissions units is in operation:

a. the company identification of each lubricant employed;

b. the amount of each lubricant employed, in pounds;

c. the PE factor (and PM_{10} factor if available) for each lubricant employed, in pounds of PE (and PM_{10}) per pound of lubricant;

d. the total PE (and PM_{10}) rate for all lubricants employed, in pounds of PE (and PM_{10}) per day, calculated as the sum of (c) x (d) for all lubricants employed;

e. the total number of hours the emissions unit was in operation; and

f. the average hourly PE (and PM_{10}) emission rate calculated as (e)/(f), in lbs/hr (average).

NOTE: See f)(1)c. and f)(1)f. regarding the record keeping applicability.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall maintain the following information for each of these emissions units:

a. the company identification for each lubricant employed and documentation as to whether or not:

i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);

ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(M) as specified in b)(2)d.; and

iii. the lubricant comes in contact with a flame.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745- 21-07(M), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745- 21-07(M)(4) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

NOTE: See f)(1)a. and f)(1)b. regarding the record keeping applicability.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain copies of all the emissions test results used to develop the OC and PE emission factors.

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particulate emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE.

Emission testing will not be required for any new lubricants, if the OC and PE content of the proposed lubricant is less than the 'worst-case' OC-based or water-based lubricant.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall perform weekly checks, when each of these emissions units is in operation and when the weather conditions allow, for any visible particulate emissions from the stack(s) serving these emissions units. 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 emission incident; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of stack observations from weekly to monthly for any of these emissions units if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall perform weekly checks, when each of these emissions units is in operation, for any visible emissions of fugitive dust from the building housing these emissions units. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident;

c. any corrective actions taken to eliminate the visible emissions;

d. whether the emissions are representative of normal operations; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of fugitive dust observations from weekly to monthly for any of these emissions units if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the water spray tunnel stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745- 21-07(M), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which the average hourly PM_{10} rate exceeded 6.0 lbs/hr, and the actual average hourly PM_{10} rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit the quarterly deviation (excursion) reports to the Cleveland DAQ in accordance with the Standard Terms and Conditions of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible particulate emissions were observed from the stack(s) serving these emissions units and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing these emissions units and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions, for each emissions unit.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(2), d)(3) and d)(4).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate OC emission factor for the lube material employed cannot exceed the allowable OC limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see f)(2)).

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:
For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions, for each emissions unit.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(2), d)(3) and d)(4).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum daily lube usage rate multiplied by the appropriate OC emission factor for the lube material employed cannot exceed the allowable OC limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:
Less than 10 lbs/hr of particulate emissions (PE), for each emissions unit.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate PE emission factor for the lube material employed cannot exceed the allowable PE limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:
Visible particulate emissions from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule, for each emission unit.

Applicable Compliance Method:
Compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average, for each emissions unit.

Applicable Compliance Method:
Compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving these emissions units. This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f. Emission Limitation:
PM_{10} emissions shall not exceed 6.0 lbs/hr, for each emissions unit.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate PE emission factor (or PM_{10} factor if available) for the lube material employed cannot exceed the allowable PM_{10} limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 201 or 201A for PM_{10} of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

* Emissions units P018, P019, and P129 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions units is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.

The emission testing shall be conducted within 24 months of permit issuance for one of the following identical emissions units P018, P019, and P129.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE, PM_{10}, and the control efficiency requirement for OC as specified in b)(1). Separate emission tests shall be performed while using worst case lubricants that are exposed to temperatures >220 degrees F or flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE, Methods 1 through 4 and 201 or 201A for PM_{10}, and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 9, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

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

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) If Alcoa chooses to revisit the PM_{10} modeling in the future, it will only be necessary to address the 24-hour PM_{10} NAAQS since the annual PM_{10} standard has been eliminated.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) PTI administrative modification P0119291 has been processed in order to address the April 14-17, 2015 emissions test results by adjusting the allowable hourly PM_{10} emission limits for P007-P010 (limit increasing), P018, P019, and P129 (limit decreasing). In addition, emissions units P024, P032, P017, and P429 have been permanently shut down. The allowable PM_{10} limits that were used for the 2006 modeling were established based on the best information at that time. The 2015 stack test results have provided improved information to make it necessary to adjust the PM_{10} limits. These changes for the PM_{10} emission limits will not result in an overall increase of the allowable PM_{10} emissions for the facility; instead, there is an overall decrease of the allowable PM_{10} emissions for the facility. Consequently, it is not necessary to revisit the PM_{10} modeling that was performed in 2006.

Additionally, should future PM_{10} emissions testing for other emissions units, that were included in the 2006 PM_{10} modeling, indicate higher actual emissions than previously determined, then Alcoa may propose further adjustments to the allowable PM_{10} limits without the need to revisit the PM_{10} modeling, provided a demonstration can be made that there will be no overall increase of the allowable PM_{10} emissions for the facility based on the total allowable amount that was used for the 2006 PM_{10} modeling.

[Authority for term: OAC rule 3745-77-07(C)(1)]

40. Emissions Unit Group - Bldg 114 Steam Hammers: P007, P008, P009, P010

EU ID	Operations, Property and/or Equipment Description
P007	Building 114, number 35001 steam hammer for the production of metal forgings, operating at a maximum batch process weight rate of 20,400 lbs/hr of metal. Emissions are exhausted through a vertical stack. P007 and the water spray tunnel stack were installed in 1950.
P008	Building 114, number 35002 steam hammer for the production of metal forgings, operating at a maximum batch process weight rate of 20,400 lbs/hr of metal. Emissions are exhausted through a vertical stack. P008 and the water spray tunnel stack were installed in 1950.
P009	Building 114, number 25001 steam hammer for the production of metal forgings, operating at a maximum batch process weight rate of 20,400 lbs/hr of metal. Emissions are exhausted through a vertical stack. P009 and the water spray tunnel stack were installed in 1950.
P010	Building 114, number 8001, steam hammer for the production of metal forgings, operating at a maximum batch process weight rate of 20,400 lbs/hr of metal. Emissions are exhausted through a vertical stack. P010 and the water spray tunnel stack were installed in 1950.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) 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 3745-17-07(A)(1)	Visible particulate emissions from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule, for each emissions unit.
b.	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average, for each emissions unit.
c.	OAC rule 3745-17-08(B)	See b)(2)b. below.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-11(B)	See b)(2)a. below.
e.	OAC rule 3745-21-07(M)(4)	For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit, for each emissions unit. See b)(2)c. below.
f.	OAC rule 3745-21-07(M)	For the lubricants that are not exposed to temperatures >220 degrees F or flame, there are no applicable requirements from this rule.
g.	OAC rule 3745-77-07(B)	PM_{10} emissions shall not exceed 9.9 lbs/hr, for each emissions unit. See b)(2)e. below.

(2) Additional Terms and Conditions

a. The uncontrolled mass rate of particulate emissions (PE) from each of these emissions units is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 pounds per hour. Therefore, to ensure that Figure II will not be applicable, the uncontrolled mass rate of PE is limited to less than 10 pounds per hour.

b. The permittee shall employ reasonably available control measures (RACM) that include, but are not limited to, the use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the captured fugitive dust emissions to the water spray tunnel. 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.

c. The Ohio EPA has determined that OAC rule 3745-21-07(M)(4) is an applicable requirement for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), that is employed and comes into contact with a flame. Certain lubricants employed in this emissions unit always have flame present when applying the lubricant; therefore, OAC rule 3745-21-07(M)(4) is an applicable requirement when these

lubricants are employed. In addition, these OC emissions are not exempt from OAC rule 3745-21-07(M) pursuant to OAC rule 3745-21-07(M)(5)(c) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

d. As specified in OAC rule 3745- 21-07(M)(5)(d), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rule 3745- 21-07(M):

i. the volatile content of the lubricant consists only of water and liquid organic material; and

ii. the liquid organic material comprises not more than twenty per cent, by volume, of said volatile content.

e. This emission limit is based on air dispersion modeling conducted in August of 2006 to determine and maintain compliance with the 24-hour and annual PM_{10} National Ambient Air Quality Standards (NAAQS). The PM_{10} emission limit was increased from 3.167 lbs/hr to 9.9 lbs/hr as a result of emissions testing that was conducted in April 2015. See g)(3) below.

c) Operational Restrictions

(1) Only two of the four steam hammers (P007 – P010) shall operate at any one time. This restriction is based on air dispersion modeling conducted in August of 2006 to determine and maintain compliance with the 24-hour and annual PM_{10} National Ambient Air Quality Standards (NAAQS).

[Authority for term: OAC rule 3745-77-07(A)(1)]

(2) Each of these emissions units shall be limited to 16 hours per day and 361 days per year of operation. During the times of operation, these emission units will be at 95% Operational Availability (OA). These restrictions are based on air dispersion modeling conducted in August of 2006 to determine and maintain compliance with the 24-hour and annual PM_{10} National Ambient Air Quality Standards (NAAQS).

[Authority for term: OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall record the following information for each day when each of these emissions units is in operation:

d. the company identification of each lubricant employed;

e. the amount of each lubricant employed, in pounds;

f. the PE factor (and PM_{10} factor if available) for each lubricant employed, in pounds of PE (and PM_{10}) per pound of lubricant;

g. the total PE (and PM_{10}) rate for all lubricants employed, in pounds of PE (and PM_{10}) per day, calculated as the sum of (c) x (d) for all lubricants employed;

h. the total number of hours the emissions unit was in operation; and

i. the average hourly PE (and PM_{10}) emission rate calculated as (e)/(f), in lbs/hr (average).

NOTE: See f)(1)c. and f)(1)f. regarding the record keeping applicability.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall maintain the following information for each of these emissions units:

a. the company identification for each lubricant employed and documentation as to whether or not:

i. the lubricant is a liquid organic material as defined in OAC rule 3745-21-01(C)(3);

ii. the lubricant is exempt from the emission limitations of OAC rule 3745-21-07(M) as specified in b)(2)d.; and

iii. the lubricant comes in contact with a flame.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745- 21-07(M), is employed, the permittee shall record the following information for all the lubricants that come in contact with a flame (i.e., subject to OAC rule 3745- 21-07(M)(4) limitations):

a. the amount of each lubricant (exempt and non-exempt lubricant) employed, in pounds;

b. the OC emission factor for each lubricant (exempt and non-exempt lubricant) employed, in pounds OC emissions per pound of lubricant;

c. the total OC emission rate for all lubricants employed, in pounds OC emissions per day, calculated as the sum of (a) x (b) for all lubricants employed;

d. the total number of hours the emissions unit was in operation; and

e. the average hourly OC emission rate calculated as (c)/(d), in lbs/hr (average).

For each day during which the permittee utilizes only lubricants for which the permittee has demonstrated through emission testing that an 85% reduction in OC emissions would be achieved for each lubricant, the above-mentioned record keeping is not required.

NOTE: See f)(1)a. and f)(1)b. regarding the record keeping applicability.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall maintain copies of all the emissions test results used to develop the OC and PE emission factors.

*For the lubricants that come in contact with flame, the emissions tests performed prior to the effective date of this permit, to determine the applicable OC and particulate emission factors, have also demonstrated there is a greater than 85% reduction in the OC emissions as a result of the combustion of the lubricants.

The permittee may employ other lubricants provided that the use of these lubricants does not cause an exceedance of the allowable emission limitations for OC and PE.

Emission testing will not be required for any new lubricants, if the OC and PE content of the proposed lubricant is less than the 'worst-case' OC-based or water-based lubricant**.**

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall perform weekly checks, when each of these emissions units is in operation and when the weather conditions allow, for any visible particulate emissions from the stack(s) serving these emissions units. 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 emission incident; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of stack observations from weekly to monthly for any of these emissions units if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall perform weekly checks, when each of these emissions units is in operation, for any visible emissions of fugitive dust from the building housing these emissions units. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident;

c. any corrective actions taken to eliminate the visible emissions;

d. whether the emissions are representative of normal operations; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of fugitive dust observations from weekly to monthly for any of these emissions units if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(7) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the water spray tunnel stack and all the fugitive egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(M), is employed, the lubricant comes in contact with a flame, and the average hourly OC emission rate exceeded 3 pounds per hour and (b) the actual average hourly OC emission rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745- 21-07(M), is employed, the lubricant comes in contact with a flame, and the OC emission rate exceeded 15 pounds per day and (b) the actual OC emission rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which the average hourly PM_{10} rate exceeded 9.9 lbs/hr, and the actual average hourly PM_{10} rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall submit the quarterly deviation (excursion) reports to the Cleveland DAQ in accordance with the Standard Terms and Conditions of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible particulate emissions were observed from the stack(s) serving these emissions units and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(6) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible emissions of fugitive dust were observed from the building housing these emissions units and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr; or there shall be an 85% reduction in OC emissions, for each emissions unit.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(2), d)(3) and d)(4).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate OC emission factor for the lube material employed cannot exceed the allowable OC limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 25, 25A, 25B, or alternative modified Test Method 18 of 40 CFR Part 60, Appendix A. Alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B (see f)(2)).

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:
For the lubricants that are exposed to temperatures >220 degrees F or flame, the organic compound (OC) emissions shall not exceed 15 lbs/day; or there shall be an 85% reduction in OC emissions, for each emissions unit.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(2), d)(3) and d)(4).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum daily lube usage rate multiplied by the appropriate OC emission factor for the lube material employed cannot exceed the allowable OC limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:
Less than 10 lbs/hr of particulate emissions (PE), for each emissions unit.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate PE emission factor for the lube material employed cannot exceed the allowable PE limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1)]

d. Emission Limitation:
Visible particulate emissions from the water spray tunnel stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule, for each emissions unit.

Applicable Compliance Method:
Compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e. Emission Limitation:
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average, for each emissions unit.

Applicable Compliance Method:
Compliance may be determined through visible emission testing performed in accordance with Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3). For purposes of verifying compliance with this limitation, visible PE observations shall be performed at the non-stack egress points (e.g., windows, doors, roof monitors) serving these emissions units. This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f. Emission Limitation:
PM_{10} emissions shall not exceed 9.9 lbs/hr, for each emissions unit.

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1).

No monitoring or record keeping will be required to demonstrate compliance with this emission limitation provided that the maximum hourly lube usage rate multiplied by the appropriate PE emission factor (or PM_{10} factor if available) for the lube material employed cannot exceed the allowable PM_{10} limitation.

If compliance cannot be demonstrated through this calculation method using the maximum lube usage rate, then the permittee shall demonstrate compliance through the record keeping as noted above using actual lube usage rates.

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 4 and 201 or 201A for PM_{10} of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*Emissions units P007, P008, P009, and P010 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack test cycle.

The emission testing shall be conducted within 24 months of permit issuance for one of the following identical emissions units P007, P008, P009, and P010.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE, PM_{10} and the control efficiency requirement for OC as specified in b)(1). Separate emission tests shall be performed while using worst case lubricants that are exposed to temperatures >220 degrees F or flame.

The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1 through 5 of 40 CFR Part 60, Appendix A for PE, Methods 1 through 4 and 201 or 201A for PM_{10} and Methods 1 through 4 and 25, 25A or 25B of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-21-10 for OC emissions. An alternative modified Test Method 18 was approved in the November 19, 1984 letter from the Director of Air Management Division, USEPA Region V to the General Manager Environmental Control, Aluminum Company of America, Pittsburgh, PA 15219. This alternative modified Test Method 18 may be used in place of Test Methods 25, 25A or 25B. Visible emission readings, using USEPA Method 9, shall be performed during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

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

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) The Cleveland DAQ has agreed to allow ALCOA to conduct fluid trials in presses, hammers, and other machines at this facility in order to test new lubricants, coolants and other fluids or evaluate new uses of existing lubricants, coolants and other fluids. These fluid trials do not require a permit to install or permit to install modification pursuant to OAC Chapter 3745-31 or a Director's exemption letter pursuant to OAC rule 3745-31-03(A)(3)(f).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) If Alcoa chooses to revisit the PM_{10} modeling in the future, it will only be necessary to address the 24-hour PM_{10} NAAQS since the annual PM_{10} standard has been eliminated.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) PTI administrative modification P0119291 has been processed in order to address the April 14-17, 2015 emissions test results by adjusting the allowable hourly PM_{10} emission limits for P007-P010 (limit increasing), P018, P019, and P129 (limit decreasing). In addition, emissions units P024, P032, P017, and P429 have been permanently shut down. The allowable PM_{10} limits that were used for the 2006 modeling were established based on the best information at that time. The 2015 stack test results have provided improved information to make it necessary to adjust the PM_{10} limits, These changes for the PM_{10} emission limits will not result in an overall increase of allowable PM_{10} emissions for the facility; instead, there is an overall decrease of the allowable PM_{10} emissions for the facility. Consequently, it is not necessary to revisit the PM_{10} modeling that was performed in 2006.

Additionally, should future PM_{10} emissions testing for other emissions units, that were included in the 2006 PM_{10} modeling, indicate higher actual emissions than previously determined, then Alcoa may propose further adjustments to the allowable PM_{10} limits without the need to revisit the PM_{10} modeling, provided a demonstration can be made that there will be no overall increase of the allowable PM_{10} emissions for the facility based on the total allowable amount that was used for the 2006 PM_{10} modeling.

[Authority for term: OAC rule 3745-77-07(C)(1)]

41. Emissions Unit Group - Gas Fired Boilers: B008, B009

EU ID	Operations, Property and/or Equipment Description
B008	Nebraska Boiler Company model NS-F-73SH: 98.8 mmBtu/hr natural gas-fired boiler. B008 was installed in August 1997.
B009	Nebraska Boiler Company model NS-F-73SH: 98.8 mmBtu/hr natural gas-fired boiler. B009 was installed in August 1997.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) 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) Permit No. P0111267 issued November 13, 2012.	Lower nitrogen oxide (NO_X) burners and pollutant specific emission limits, for each emissions unit. See b)(2)a. through b)(2)e. below. This rule also includes compliance with the requirements of OAC rules 3745-17-07(A)(1), 3745-17-10(B)(1) and 3745-110-03(J)(16).
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule, for each emissions unit.
c.	OAC rule 3745-17-10(B)(1)	Particulate emissions (PE) shall not exceed 0.020 lb per mmBtu of actual heat input, for each emissions unit.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-18-06(D)	There are no sulfur dioxide (SO_2) emission limitations when burning only natural gas.
e.	OAC rule 3745-110-03(J)(16)	Nitrogen Oxide (NOx) emissions shall not exceed 25 tons per year (TPY) as a rolling, 12-month summation, for each emissions unit. See d)(1), e)(2), and f)(1)g. below.
f.	40 CFR, Part 60, Subpart Dc	See b)(2)f. below.
g.	40 CFR Part 63, Subpart JJJJJJ	See b)(2)g. below.

(2) Additional Terms and Conditions

a. Allowable mass emissions shall not exceed the following, for each emissions unit:

When burning natural gas:

Nitrogen Oxide (NOx): 14.82 lbs/hr

PM_{10} emissions (PM_{10}): 0.188 lb/hr

Carbon monoxide (CO): 8.30 lbs/hr

b. The annual particulate emissions (PE) from each boiler shall be limited to 3.33 tons per year.

c. The annual NO_X emissions from each boiler shall be limited to 25 tons per year.

d. The annual CO emissions from each boiler shall be limited to 13.9 tons per year.

e. The annual PM_{10} emissions from each boiler shall be limited to 0.31 ton per year.

f. So long as only natural gas fuel is burned, these emissions units are not subject to the emission limits listed in 40 CFR Part 60, Subpart Dc.

g. So long as only natural gas fuel is burned, these emissions units are not subject to the emission limits listed in 40 CFR Part 63, Subpart JJJJJJ.

c) Operational Restrictions

(1) The permittee shall burn only natural gas in each of these emissions units.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(A)(3) and Permit No. P0111267]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information, for each emissions unit:

a. the amount, in cubic feet, of natural gas burned; and

b. the NOx emissions, in tons/month, and the rolling, 12-month summation of NOx emissions calculated in accordance with f)(1)g. below.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and Permit No. P0111267]

(2) 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 each of these emissions units.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and Permit No. P0111267]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each day when a fuel other than natural gas was burned in any of these emissions units. Each report shall be submitted within 30 days after the deviation occurs.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and Permit No. P0111267]

(2) The permittee shall submit deviation (excursion) reports to the Cleveland DAQ that identify any exceedance of the rolling, 12-month NOx limitation of 25 tons. The deviation (excursion) reports shall be submitted to the Cleveland DAQ within 30 days after the exceedance occurs.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and Permit No. P0111267]

f) Testing Requirements

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

a. Emission Limitation:
Visible particulate emissions from any exhaust stack shall not exceed 20% opacity (6-minute average), except as provided by rule, for each emissions unit.

Applicable Compliance Method:
Compliance shall be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and Permit No. P0111267]

b. Emission Limitation:
Particulate emissions (PE) shall not exceed 0.020 lb per mmBtu of actual heat input, for each emissions unit.

Applicable Compliance Method:
For natural gas, compliance may be determined by dividing the emission factor of 1.9 lbs PE/mm cu. ft. for natural gas by the natural gas gross heating value of 1,020 Btu/cu. ft. This emission factor is specified in the USEPA's Compilation of Air Pollution Emission Factors, AP-42, Fifth Edition, Section 1.4, Table 1.4-2 (7/98).

Actual PE rate = (1.9 lbs PE/mm cu. ft.)x(cu. ft./1,020 Btu) = 0.0019 lb PE/mmBtu

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and Permit No. P0111267]

c. Emission Limitation:
Particulate emissions (PM_{10}) shall not exceed 0.188 lb/hr, for each emissions unit.

Applicable Compliance Method:
For natural gas, compliance may be determined by multiplying the lb PE/mmBtu emission rate calculated in f)(1)b. by the maximum hourly heat input of the emissions unit (98.8 mmBtu/hr).

If required, compliance shall be demonstrated based on emission testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and Permit No. P0111267]

d. Emission Limitation:
Carbon monoxide (CO) emissions shall not exceed 8.30 lbs/hr when burning natural gas, for each emissions unit.

Applicable Compliance Method:
Compliance may be determined by multiplying the appropriate emission factor for natural gas from USEPA's Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Section 1.4, Table 1.4-1 (7/98) and the maximum boiler heat input in Btu/hr, and then dividing the resultant product by the natural gas gross heating value of 1,020 Btu/cu. ft. .

Actual hourly CO emission rate = (84 lbs CO/mm cu. ft.) x (98.8 mmBtu/hr) / (1,020 Btu/cu. ft.) = 8.30 lbs CO/hr

If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission testing conducted in accordance with Methods 1 through 4, and 10 of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and Permit No. P0111267]

e. Emission Limitation:
The annual PE from each boiler shall be limited to 3.33 tons per year, for each emissions unit.
The annual CO emissions from each boiler shall be limited to 13.9 tons per year, for each emissions unit.
The annual PM_{10} emissions from each boiler shall be limited to 0.31 ton per year, for each emissions unit.

Applicable Compliance Method:

The annual emission rate in tons per year for each boiler when burning natural gas may be determined by multiplying the appropriate emission factor in lbs/million cu. ft. by the natural gas usage in cubic feet per year, and then dividing the resultant product by a factor of 2,000 lbs/ton.

The emission factors for burning natural gas are specified in USEPA's Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Tables 1.4-1 and 1.4-2 (7/98).

In addition, the permittee may utilize emission factors for natural gas that are based upon emission testing performed for this emissions unit or an identical unit.

Actual annual emission rate, tons/yr = (lbs emissions/mm cu. ft.) x (mm cu. ft. natural gas/yr) / (2,000 lbs/ton)

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and Permit No. P0111267]

f. Emission Limitation:
Nitrogen oxide (NO_X) emissions shall not exceed 14.82 lbs/hr, for each emissions unit.

Applicable Compliance Method:
Compliance with the lb/hr emission limitation was demonstrated through performance testing conducted in August 2010. The average emission factor established for NOx emissions was 0.15 lb/mmBtu. This emissions factor is multiplied by the maximum heat input of the boiler (98.8 mmBtu/hr) to arrive at the lbs/hr emission rate.

If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission testing conducted in accordance with Methods 1 through 4, and 7 of 40 CFR Part 60, Appendix A.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and Permit No. P0111267]

g. Emission Limitation:

NOx emissions shall not exceed 25 TPY per rolling, 12-month summation, for each emissions unit.

Applicable Compliance Method:
Compliance with the annual NOx emission limitation shall be determined through use of the following equation using the emission factor established during the performance test conducted in August 2010, the natural gas gross heating value, the monthly amount of natural gas burned and the conversion factor of 2,000 lbs/ton:

(0.15 pound NOx/mmBtu emission rate) x (1,020 Btu/cf of natural gas) x (monthly amount of natural gas burned) / 2,000 pounds/ton = tons NOx/month

The monthly emissions shall then be added together to determine the rolling, 12-month summation.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) and Permit No. P0111267]

g) Miscellaneous Requirements

(1) Superseded permit PTI 13-3174 issued June 20, 1997.

[Authority for term: OAC rule 3745-77-07(C)(1)]

42. Emissions Unit Group - Titan Grinding Booths: P091, P092, P093, P094

EU ID	Operations, Property and/or Equipment Description
P091	Building 206, titanium grinding booth (number T-1), for grinding metal parts with a grinding wheel (Particulate emissions (PE) are controlled by a cartridge filter.) P091 and a Rotoclone scrubber were installed in 1969. A cartridge filter replaced the Rotoclone in 1979.
P092	Building 206, titanium grinding booth (number T-2), for grinding metal parts with a grinding wheel (Particulate emissions (PE) are controlled by a cartridge filter.) P092 and a Rotoclone scrubber were installed in 1969. A cartridge filter replaced the Rotoclone in 1979.
P093	Building 206, titanium grinding booth (number T-3), for grinding metal parts with a grinding wheel (Particulate emissions (PE) are controlled by a cartridge filter.) P093 and a Rotoclone scrubber were installed in 1969. A cartridge filter replaced the Rotoclone in 1979.
P094	Building 206, titanium grinding booth (number T-4), for grinding metal parts with a grinding wheel (Particulate emissions (PE) are controlled by a cartridge filter.) P094 and a Rotoclone scrubber were installed in 1969. A cartridge filter replaced the Rotoclone in 1979.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) 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 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule, for each emissions unit.
b.	OAC rule 3745-17-11(B) Figure II	Particulate emissions (PE) shall not exceed 9.48 lbs/hr from all four cartridge filters serving P091, P092, P093, and P094 combined. See b)(2)a.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-77-07(B)	PM_{10} emissions shall not exceed 1.0 lb/hr for each emissions unit. See b)(2)c. below.

(2) Additional Terms and Conditions

a. Emissions units P091, P092, P093 and P094 are located in close proximity to each other. The allowable hourly PE rate from the four cartridge filters serving these emissions units was determined by using Figure II and a calculated combined uncontrolled emission rate of 76.2 lbs PE/hr. The uncontrolled hourly PE rate was calculated from the calculated combined process weight rate of 3,048 lbs/hr of metal parts ground and an uncontrolled emission factor that had been determined from a March 18, 1982 stack emission test on P095, which has since shut down.

b. The emissions from these emissions units shall be vented to the respective cartridge filter at all times the emissions units are in operation.

c. This emission limit is based on air dispersion modeling conducted in August of 2006 to determine and maintain compliance with the 24-hour and annual PM_{10} National Ambient Air Quality Standards (NAAQS).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the cartridge filter is between 2.0 to 14.0 inches of water.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall properly operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the cartridge filter when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the cartridge filter on a daily basis when each of these emissions units is operating. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

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

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

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

e. the findings and recommendations.

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

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

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

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

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

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

This range or limit on the pressure drop across the cartridge filter is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Cleveland Division of Air Quality (Cleveland DAQ). 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 a minor permit modification.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall maintain copies of all the stack test results used to develop the PE factors. The following current PE factor was developed based on previous emission testing:

Stack test date: March 18, 1982

Emission data:
PE factor, 0.025 lb PE/lb metal ground;
actual PE rate at 12.7 lbs PE/hr; and
cleaning at a rate of 508 lbs metal parts/hr.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(4) The permittee shall perform weekly checks, when each of these emissions units is in operation and when the weather conditions allow, for any visible particulate emissions from the cartridge filters serving these emissions units. 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 emission incident; and

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

Notwithstanding the frequency of reporting requirements specified below, the permittee may reduce the frequency of stack observations from weekly to monthly for any of these emissions units if the following conditions are met:

f. for 1 full quarter the facility's visual observations indicate no visible emissions; and

g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to weekly readings if any visible emissions are observed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(5) The visible emission checks may be performed in person or using the facility's color video surveillance system. When using the video surveillance system, the permittee shall ensure that the video surveillance system is able to clearly view the cartridge filter serving this emissions unit.

The person(s) conducting the visible emission observations shall be trained annually on completing the visible emission checks and associated record keeping and implementing corrective actions to address a visible emission incident.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit the quarterly deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) in accordance with the Standard Terms and Conditions of this permit. The deviation reports shall include the emission factor(s) used and a copy of the emission calculation(s) which document the deviation(s).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit semiannual written reports to the Cleveland DAQ that (a) identify all days during which any visible particulate emissions were observed from the cartridge filters serving these emissions units and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland DAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

(3) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify the following:

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

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

c. each incident of deviation described in e)(3)a. (above) where a prompt investigation was not conducted;

d. each incident of deviation described in e)(3)a. where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in e)(3)a. where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:
Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule, for each emissions unit.

Applicable Compliance Method:
Compliance may be determined through visible emission observations performed in accordance with USEPA Test Method 9 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(1). This compliance method shall be used whenever a compliance determination is warranted.

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:
Particulate emissions (PE) shall not exceed 9.48 lbs/hr from all four cartridge filters serving P091, P092, P093 and P094 combined.

Applicable Compliance Method:
The permittee shall demonstrate compliance with the emission limitation through emission testing conducted in accordance with USEPA Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE. See f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

PM_{10} emissions shall not exceed 1.0 lb/hr, for each emissions unit.

Applicable Compliance Method:

Compliance shall be determined pursuant to the emission testing required in f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1)]

(2) The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*Emissions units P091, P092, P093 and P094 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical

emissions unit is stack tested, one other emissions unit may be stack tested in the next required stack testing cycle.

The emission testing shall be conducted within 12 months of permit issuance for one of the following identical emissions units P091, P092, P093 and P094.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulate emissions and PM_{10} in b)(1). The secondary purpose of this testing is to verify the current particulate emission factors or establish new emission factors to be used to demonstrate compliance with the emission limits.

Emission tests for PE shall also be performed at the inlet of the control device for purposes of determining the uncontrolled mass emission rate of emissions (UMRE) and the allowable emission rate from Figure II of OAC rule 3745-17-11. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate(s): Test Methods 1 through 4 of 40 CFR Part 60, Appendix A for gas flow characteristics and Test Method 5 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) for PE, and Methods 1 through 4 and 201 or 201A for PM_{10}. Visible emission readings, using USEPA Method 9, shall be performed for the baghouse during each test run.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

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

Personnel from the Cleveland DAQ shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following completion of the tests.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) If Alcoa chooses to revisit the PM_{10} modeling in the future, it will only be necessary to address the 24-hour PM_{10} NAAQS since the annual PM_{10} standard has been eliminated.

[Authority for term: OAC rule 3745-77-07(C)(1)]