



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

9/24/2015

Certified Mail

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

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL  
 Facility ID: 1318170314  
 Permit Number: P0119291  
 Permit Type: Administrative Modification  
 County: Cuyahoga

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	MAJOR GHG
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Dear Permit Holder:

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

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

**How to appeal this permit**

The issuance of this PTI 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](http://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](http://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](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Cleveland Division of Air Quality at (216)664-2297 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



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

Cc: U.S. EPA  
CDAQ; Pennsylvania; Canada



**FINAL**

**Division of Air Pollution Control  
Permit-to-Install  
for  
ALCOA-Cleveland Works**

Facility ID: 1318170314  
Permit Number: P0119291  
Permit Type: Administrative Modification  
Issued: 9/24/2015  
Effective: 9/24/2015





**Division of Air Pollution Control**  
**Permit-to-Install**  
for  
ALCOA-Cleveland Works

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**Final Permit-to-Install**  
ALCOA-Cleveland Works  
**Permit Number:** P0119291  
**Facility ID:** 1318170314  
**Effective Date:** 9/24/2015

## Authorization

Facility ID: 1318170314  
Facility Description: Aluminum forging operation  
Application Number(s): A0053824  
Permit Number: P0119291  
Permit Description: PTI administrative modification to adjust hourly PM10 emission rates for P007 through P010, P018, P019, and P129 with no increase in allowable PM10 facility-wide emissions. These adjustments are being made due to recent stack testing that was performed in April 2015.  
Permit Type: Administrative Modification  
Permit Fee: \$2,875.00  
Issue Date: 9/24/2015  
Effective Date: 9/24/2015

This document constitutes issuance to:

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

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

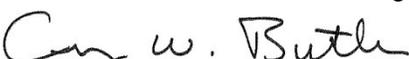
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

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

The above named entity is hereby granted a Permit-to-Install for the emissions unit(s) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

  
Craig W. Butler  
Director



## Authorization (continued)

Permit Number: P0119291

Permit Description: PTI administrative modification to adjust hourly PM10 emission rates for P007 through P010, P018, P019, and P129 with no increase in allowable PM10 facility-wide emissions. These adjustments are being made due to recent stack testing that was performed in April 2015.

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

**Group Name: Bldg 101 Mechanical Presses**

<b>Emissions Unit ID:</b>	<b>P018</b>
Company Equipment ID:	Mech 1600 T Erie
Superseded Permit Number:	P0115808
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P019</b>
Company Equipment ID:	Mech 4000 T Ajax
Superseded Permit Number:	P0115808
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P129</b>
Company Equipment ID:	2503 Mechanical Press
Superseded Permit Number:	P0115808
General Permit Category and Type:	Not Applicable

**Group Name: Bldg 114 Steam Hammers**

<b>Emissions Unit ID:</b>	<b>P007</b>
Company Equipment ID:	35001 Hammer
Superseded Permit Number:	P0115808
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P008</b>
Company Equipment ID:	35002 Hammer
Superseded Permit Number:	P0115808
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P009</b>
Company Equipment ID:	25001 Hammer
Superseded Permit Number:	P0115808
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P010</b>
Company Equipment ID:	8001 Hammer
Superseded Permit Number:	P0115808
General Permit Category and Type:	Not Applicable



**Final Permit-to-Install**  
ALCOA-Cleveland Works  
**Permit Number:** P0119291  
**Facility ID:** 1318170314  
**Effective Date:**9/24/2015

## **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.2.a), Severability Clause
  - (2) Standard Term and Condition A.3.c) through A. 3.e) General Requirements
  - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
  - (4) Standard Term and Condition A.9., Reporting Requirements
  - (5) Standard Term and Condition A.10., Applicability
  - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
  - (7) Standard Term and Condition A.14., Public Disclosure
  - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
  - (9) Standard Term and Condition A.16., Fees
  - (10) Standard Term and Condition A.17., Permit Transfers

**2. Severability Clause**

- a) 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.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they 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 and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

**3. 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 re-issuance, or modification.

- 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 permit.
- c) This permit may be modified, revoked, or revoked and reissued, for cause. 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 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.

#### **4. 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, 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.
- 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, 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.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Cleveland Division of Air Quality.

- (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Cleveland Division of Air Quality. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.
  - (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the Cleveland Division of Air Quality every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
  - (4) This permit is for an emissions unit located at a Title V facility. 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 are true, accurate, and complete.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

## 5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, 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. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to 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 emission unit(s) that is (are) served by such control system(s).

## 6. Compliance Requirements

- a) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted

local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a Responsible Official that, 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 ORC section 3704.08.
  - (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.

## **7. Best Available Technology**

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

**8. 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.

**9. Reporting Requirements**

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Cleveland 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 (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Cleveland Division of Air Quality. 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.)

**10. Applicability**

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s) not exempt from the requirement to obtain a Permit-to-Install.

**11. Construction of New Sources(s) and Authorization to Install**

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the

Director within a reasonable time before the termination date and the permittee shows good cause for any such extension.

- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized 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 authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).
- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

Unless otherwise exempted, no emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31 and OAC Chapter 3745-77 if the restarted operation is subject to one or more applicable requirements.

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

## **12. Permit-To-Operate Application**

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if operation of the proposed new or modified source(s) as authorized by this permit would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d) must be obtained before operating the source in a manner that would violate the existing Title V permit requirements.

**13. Construction Compliance Certification**

The applicant shall identify the following dates in the "Air Services" facility profile for each new emissions unit identified in this permit.

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

**14. Public Disclosure**

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

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

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.

**16. 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. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

**17. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in "Air Services" once the transfer is legally completed. The change must be submitted through "Air Services" within thirty days of the ownership transfer date.

**18. Risk Management Plans**

If the permittee is required to 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"), the permittee shall comply with the requirement to register such a plan.

**19. 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.



**Final Permit-to-Install**  
ALCOA-Cleveland Works  
**Permit Number:** P0119291  
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**Effective Date:**9/24/2015

## **B. Facility-Wide Terms and Conditions**



**Final Permit-to-Install**  
ALCOA-Cleveland Works  
**Permit Number:** P0119291  
**Facility ID:** 1318170314  
**Effective Date:**9/24/2015

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.



**Final Permit-to-Install**  
ALCOA-Cleveland Works  
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## **C. Emissions Unit Terms and Conditions**

**1. 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.
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. below.
d.	OAC rule 3745-17-11(B)	See b)(2)a. below.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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. 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 3745-31-05(F)	PM <sub>10</sub> emissions shall not exceed 6.0 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<sub>10</sub> National Ambient Air Quality Standards (NAAQS). The PM<sub>10</sub> 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<sub>10</sub> National Ambient Air Quality Standards (NAAQS).
- (2) Operational hours of this emissions unit shall be limited to 16 hours per day. During the times of operation, the emission unit 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<sub>10</sub> National Ambient Air Quality Standards (NAAQS).

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<sub>10</sub> factor if available) for each lubricant employed, in pounds of PE (and PM<sub>10</sub>) per pound of lubricant;
  - d. the total PE (and PM<sub>10</sub>) rate for all lubricants employed, in pounds of PE (and PM<sub>10</sub>) 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<sub>10</sub>) emission rate calculated as (e)/(f), in lbs/hr (average).

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

- (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.
- (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.

- (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.

- (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.

- (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 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.

- (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.

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.
- (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.
- (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<sub>10</sub> rate exceeded 6.0 lbs/hr, and the actual average hourly PM<sub>10</sub> rate for each such day.

- (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).

- (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.
- (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.
- 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)).
- 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.

- 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.

- 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.

- 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.

- f. Emission Limitation:  
PM<sub>10</sub> emissions shall not exceed 6.0 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<sub>10</sub> factor if available) for the lube material employed cannot exceed the allowable PM<sub>10</sub> 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<sub>10</sub> of 40 CFR Part 60, Appendix A.

- (2) The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units\* in accordance with the most recently issued Title V permit.

\* Emissions units P018, P019, and P129 are identical emissions units.

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).
- (2) If Alcoa chooses to revisit the PM<sub>10</sub> modeling in the future, it will only be necessary to address the 24-hour PM<sub>10</sub> NAAQS since the annual PM<sub>10</sub> standard has been eliminated.
- (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<sub>10</sub> 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<sub>10</sub> 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<sub>10</sub> limits. These changes for the PM<sub>10</sub> emission limits will not result in an overall increase of allowable PM<sub>10</sub> emissions for the facility; instead, there is an overall decrease of the allowable PM<sub>10</sub> emissions for the facility. Consequently, it is not necessary to revisit the PM<sub>10</sub> modeling that was performed in 2006.



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Additionally, should future PM<sub>10</sub> emissions testing for other emissions units, that were included in the 2006 PM<sub>10</sub> modeling, indicate higher actual emissions than previously determined, then Alcoa may propose further adjustments to the allowable PM<sub>10</sub> limits without the need to revisit the PM<sub>10</sub> modeling, provided a demonstration can be made that there will be no overall increase of the allowable PM<sub>10</sub> emissions for the facility based on the total allowable amount that was used for the 2006 PM<sub>10</sub> modeling.

**2. Emissions Unit Group - Bldg 114 Steam Hammers: P007, P008, P009, P010**

<b>EU ID</b>	<b>Operations, Property and/or Equipment Description</b>
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.

	<b>Applicable Rules/Requirements</b>	<b>Applicable Emissions Limitations/Control Measures</b>
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. 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.  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 3745-31-05(F)	PM <sub>10</sub> emissions shall not exceed 9.9 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<sub>10</sub> National Ambient Air Quality Standards (NAAQS). The PM<sub>10</sub> 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<sub>10</sub> National Ambient Air Quality Standards (NAAQS).
- (2) This emissions unit shall be limited to 16 hours per day and 361 days per year of operation. During the times of operation, the emission unit 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<sub>10</sub> National Ambient Air Quality Standards (NAAQS).

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<sub>10</sub> factor if available) for each lubricant employed, in pounds of PE (and PM<sub>10</sub>) per pound of lubricant;
  - d. the total PE (and PM<sub>10</sub>) rate for all lubricants employed, in pounds of PE (and PM<sub>10</sub>) 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<sub>10</sub>) emission rate calculated as (e)/(f), in lbs/hr (average).

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

- (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.
- (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.

- (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.

- (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.

- (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 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.

- (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.

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.
- (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.
- (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<sub>10</sub> rate exceeded 9.9lbs/hr, and the actual average hourly PM<sub>10</sub> rate for each such day.

- (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).

- (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.
- (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.
- 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)).
- 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.

- 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.

- 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.

- 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.

- f. Emission Limitation:  
PM<sub>10</sub> emissions shall not exceed 9.9 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<sub>10</sub> factor if available) for the lube material employed cannot exceed the allowable PM<sub>10</sub> 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<sub>10</sub> of 40 CFR Part 60, Appendix A.

- (2) The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units\* in accordance with the most recently issued Title V permit.

\* Emissions units P007, P008, P009, and P010 are identical emissions units.

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).
- (2) If Alcoa chooses to revisit the PM<sub>10</sub> modeling in the future, it will only be necessary to address the 24-hour PM<sub>10</sub> NAAQS since the annual PM<sub>10</sub> standard has been eliminated.
- (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<sub>10</sub> 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<sub>10</sub> 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<sub>10</sub> limits. These changes for the PM<sub>10</sub> emission limits will not result in an overall increase of allowable PM<sub>10</sub> emissions for the facility; instead, there is an overall decrease of the allowable PM<sub>10</sub> emissions for the facility. Consequently, it is not necessary to revisit the PM<sub>10</sub> modeling that was performed in 2006.



**Final Permit-to-Install**  
ALCOA-Cleveland Works  
**Permit Number:** P0119291  
**Facility ID:** 1318170314  
**Effective Date:**9/24/2015

Additionally, should future PM<sub>10</sub> emissions testing for other emissions units, that were included in the 2006 PM<sub>10</sub> modeling, indicate higher actual emissions than previously determined, then Alcoa may propose further adjustments to the allowable PM<sub>10</sub> limits without the need to revisit the PM<sub>10</sub> modeling, provided a demonstration can be made that there will be no overall increase of the allowable PM<sub>10</sub> emissions for the facility based on the total allowable amount that was used for the 2006 PM<sub>10</sub> modeling.