Ohio Environmental Protection Agency
John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

9/2/2011

Certified Mail

Facility ID: 1318170314
Permit Number: P0104832
County: Cuyahoga

Richard King
ALCOA-Cleveland Works
1600 Harvard Avenue
Newburgh Heights, OH 44105-3092

RE: PRELIMINARY PROPOSED AIR POLLUTION TITLE V PERMIT
Permit Type: Renewal

Dear Permit Holder:

Enclosed is the Ohio EPA Preliminary Proposed Title V permit that was issued in draft form on 6/30/2011. The comment period for the Draft permit has ended. We are now ready to submit this permit to U.S. EPA for approval.

We are submitting this for your review and comment. If you do not agree with the Preliminary Proposed Title V permit as written, you now have the opportunity to raise your concerns. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Issued Air Pollution Control Permits" link. Comments will be accepted as a marked-up copy of the permit or in narrative format. Any comments must be sent to the following within 14 days of your receipt of this letter:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049

and

Cleveland Division of Air Quality
2nd Floor
75 Erieview Plaza
Cleveland, OH 44114

If you believe that it is necessary to have an informal conference with us, then, as part of your written comments, you should request a conference concerning the written comments.

If comments are not submitted within 14 days of your receipt of this letter, we will forward the proposed permit to U.S. EPA for approval. All comments received will be carefully considered before proceeding with the proposed permit.

Sincerely,

Michael W. Ahern

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

Cc: Cleveland Division of Air Quality

Response to Comments

Response to comments for: Title V Permit

Facility ID:	1318170314
Facility Name:	ALCOA-Cleveland Works
Facility Description:	Aluminum forging operation
Facility Address:	1600 Harvard Avenue Cleveland, OH 44105-3092 Cuyahoga County
Permit #:	P0104832, Renewal
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the The Plain Dealer on 07/05/2011. The comment period ended on 08/04/2011.	
Hearing date (if held)	
Hearing Public Notice Date (if different from draft public notice)	

The following comments were received during the comment period specified. Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. PDF copies of the original comments in the format submitted are available upon request.

1. Topic: **Statement of Basis –Visible emissions Compliance method.**

    a. Comment: **Alcoa comments that "Method 9 if required" should be added to the document as acompliance method in lieu of emissions testing.**

    b. Response: **The Statement of Basis has been revised to include the following statement to addressthe Method 9 requirement: *"Method 9 This compliance method shall be used whenever a compliance determination is warranted."***

2. Topic: **HAP's emissions from Natural Gas and Fuel Oil Combustion**

    a. Comment: **Alcoa comments that when determining the HAP emissions from combustion sources at the facility, calculations should also include the use ofemission factors "supplied by the permittee."**

    b. Response: **CDAQ agrees with this comment and have revised the term in B.5.b) to state thefollowing:**

"The HAP emissions from the combustion sources at the facility shall be calculated using records maintained by the permittee of the monthly natural gas and bulk fuel purchases and 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 fuel oil and 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."

3. Topic: **F018.**

   a. Comment: **Alcoa comments that this source is located in building 114 and not building 150.**

   b. Response: **CDAQ agrees with this comment and has revised the permit to reflect the correctbuilding location for this source.**

4. Topic: **Daily recordkeeping of lubricant material for the significant press operations.**

   a. Comment: **Alcoa requests that the following permit language for significant presses at the facility be excluded from the daily records requirement:**

   for each lubricant employed, 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 rules 3745-21-07(G) and 21-07(M) as specified in b)(2)e.; and

   iii. the lubricant comes in contact with a flame.

   Alcoa also requests that specific language be included in the permit that requires this information be made available at the site.

   b. Response: **The permit has been revised to state the following as a separate item:**

   "The permittee shall maintain the following information for this emissions unit:

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

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

   v. the lubricant is exempt from the emission limitations of OAC rules 3745-21-07(G) and 21-07(M) as specified in b)(2)e.; and

   vi. ***the lubricant comes in contact with a flame***.

   This term will not include language that requires the permittee to make these records available at the site. The Standard Terms and Conditions capture this requirement. This was discussed with Alcoa and they concur.

5. Topic: **Permit conditions in reference to the quarterly deviation control equipment reporting.**

   a. Comment: **Alcoa notes incorrect permit condition citations in relation to the quarterly deviationcontrol equipment reporting for several emissions units in the permit.**

b. Response: **CDAQ agrees with this comment. The permit has been revised to correct the permit condition citations for the emissions units.**

6. Topic: **P102.**

a. Comment: **Alcoa notes the duplicate 3745-17-08(B) rule citation.**

b. Response: **CDAQ agrees with this comment and has revised the permit to delete the duplicaterule citation.**

Ohio | Environmental Protection Agency

PRELIMINARY PROPOSED

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

Facility ID:	1318170314
Permit Number:	P0104832
Permit Type:	Renewal
Issued:	9/2/2011
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance

Ohio Environmental Protection Agency

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

Table of Contents

Authorization 1
A. Standard Terms and Conditions 2
1. Federally Enforceable Standard Terms and Conditions 3
2. Monitoring and Related Record Keeping and Reporting Requirements 3
3. Scheduled Maintenance 6
4. Risk Management Plans 6
5. Title IV Provisions 7
6. Severability Clause 7
7. General Requirements 7
8. Fees 8
9. Marketable Permit Programs 8
10. Reasonably Anticipated Operating Scenarios 8
11. Reopening for Cause 9
12. Federal and State Enforceability 9
13. Compliance Requirements 9
14. Permit Shield 11
15. Operational Flexibility 11
16. Emergencies 11
17. Off-Permit Changes 11
18. Compliance Method Requirements 12
19. Insignificant Activities or Emissions Levels 12
20. Permit to Install Requirement 12
21. Air Pollution Nuisance 13
22. Permanent Shutdown of an Emissions Unit 13
23. Title VI Provisions 13
24. Reporting Requirements Related to Monitoring and Record Keeping Requirements Under State Law Only 14
25. Inspections and Information Requests 14
26. Scheduled Maintenance/Malfunction Reporting 14
27. Permit Transfers 15
28. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations 15

B. Facility-Wide Terms and Conditions 16
C. Emissions Unit Terms and Conditions 22
1. F018, Furnace 2503 B114 23
2. F027, Furnace T-10 B206 26
3. K002, Spray Booth - B53 29
4. P011, Press 15000 34
5. P012, Press 8001 45
6. P013, Press 8002/2500 56
7. P014, Press 3004 67
8. P024, Press 3003 78
9. P029, Press 35000 89
10. P030, Press 50000 100
11. P032, Torch Pit #1 111
12. P046, Furnace HT - #1 Swindell 116
13. P054, Furnace HT - #5 Dispatch (30000) 121
14. P055, Furnace #15 Soaker 126
15. P083, Furnace T-1 B101 134
16. P086, Blast-T Whl B206 136
17. P087, Furnace T-7 B206 142
18. P100, Furnace T-8 Anneal B206 144
19. P102, Furnace #12 Soaker 146
20. P104, Press 8003/2583 154
21. P105, Furnace RH 17001 B111 167
22. P107, Furnace RH 6005 B210 170
23. P108, Blast #1 Whl B114 173
24. P121, Furnace South H.T. and Age B150 (8001) 179
25. P122, Furnace North H.T. and Age B150 (8002) 183
26. P125, Furnace T-9 B206 187
27. P152, Furnace Heat Treat Line #3 B150 191
28. P154, Furnace T-12 Titanium Preheat B210 196
29. P159, Furnace 4601 B114 201
30. P162, Inconel preheat furnace 207
31. P163, Small Wheelabrator Shotblaster B206 211
32. P164, 5082 Blocking Press 218
33. P165, 5083 Blocking Press 230
34. P402, Furnace #13 Soaker 243

35. P432, Torch Pit #2 251
36. Emissions Unit Group - Bldg 114 Steam Hammers: P007, P008, P009, P010, ... 258
37. Emissions Unit Group - Bldg 101 mechanical presses: P017, P018, P019, P129, P429, ... 269
38. Emissions Unit Group - Bldg 101 gas preheat furnaces: F003, F004, F006, F007, F008, ... 280
39. Emissions Unit Group - Bldg 111 gas preheat furnaces: F010, F011, F012, F015, F016, ... 284
40. Emissions Unit Group - Bldg 114 gas preheat furnaces: F017, F019, F020, ... 288
41. Emissions Unit Group - Bldg 120 heat treat furnaces: P003, P004,..... 291
42. Emissions Unit Group - Bldg 206 electric heat treat furnaces: P047, P048, P049, ... 294
43. Emissions Unit Group - Bldg 206 gas preheat furnaces: F023, F024, F025, F026, ... 299
44. Emissions Unit Group - Bldg 206 titan grinding booths: P091, P092, P093, P094..... 303
45. Emissions Unit Group - X plant 4,000 ton presses: P155, P156,..... 311
46. Emissions Unit Group - Y Plant 5,000 ton presses: P157, P158,..... 326
47. Emissions Unit Group - gas fired boilers: B008, B009,..... 341

Authorization

Facility ID: 1318170314
Facility Description: Aluminum forging operation
Application Number(s): A0037034
Permit Number: P0104832
Permit Description: Title V permit renewal for the Alcoa Cleveland Works Company. This is an aluminum forging operation. This permit renewal contains 40 furnaces, 1 spray booth, 2 torch pits, 19 presses, 1 grit blasting machine, 2 wheelabrator shot blasters, 4 steam hammers, 4 grinding booths and 2 natural gas/no.2 fuel oil fired boilers.
Permit Type: Renewal
Issue Date: 9/2/2011
Effective Date: To be entered upon final issuance
Expiration Date: To be entered upon final issuance
Superseded Permit Number: P0095309

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

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

Ohio 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 (540 days) and no later than 6 months (180 days) prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Scott J. Nally
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

(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

(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 recordings for 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 (i.e., postmarked) 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 scheduled maintenance, 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 promptly made to the appropriate Ohio EPA District Office or local air agency. Except as provided below, the written reports shall be submitted (i.e., postmarked) 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 (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency 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."

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

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

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

3. 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) The permittee must comply with all terms and conditions of this permit. 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 permit.

c) This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with Standard Term and Condition 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.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; orthe 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

(2) 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 contaminent 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 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 paragraph (E) of OAC rule 3745-77-03.Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

(3) 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 appropriate Ohio EPA District Office or local air agency 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 appropriate Ohio EPA District Office or local air agency) 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 (i.e., postmarked) on or before April 30th of each year during the permit term.

(2) Compliance certifications shall include the following:

a. An identification of each term or condition of this permit that is the basis of the certification.

b. The permittee's current compliance status.

c. Whether compliance was continuous or intermittent.

d. The method(s) used for determining the compliance status of the source currently and over the required reporting period.

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 appropriate Ohio EPA District Office or local air agency 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 appropriate District Office of the Ohio EPA or local air agency 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 Fed. Reg. 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 has 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.

No emissions unit certified 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 opening 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 the appropriate Ohio EPA District Office or local air agency.

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 appropriate Ohio EPA District Office or local air agency. 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 (i.e., postmarked) 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.)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.

25. 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))

26. 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 of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air

agency 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).

27. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

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

28. 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 (i.e., postmarked) 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 potentials to emit; or

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

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]

4. A final permit to install PTI #13-3174 for two gas/oil 98.8 mm Btu/hr heat input steam generating boilers was issued to Aluminum Company of America's Cleveland Works by Ohio Environmental Protection Agency on June 20, 1997. This permit to install covers emissions units B008 and B009. See section C.47 for individual emissions unit special terms and conditions.

   The sources described in this Permit to Install are subject to the applicable provisions of the Emission Offset Policy as promulgated by the United States Environmental Protection Agency, 40 CFR 51, and as delegated to the Ohio Environmental Protection Agency and are federally enforceable. Pursuant to the above, the source owner/operator is hereby advised of the following:

   In order to "net out" of the Federal Prevention of Significant Deterioration and non-attainment requirements, the applicant shall permanently shut down the following emissions units located at the Aluminum Company of America's Cleveland Works:
   B001, B002, B003, B004, and B005 by March 31, 1998, or upon startup (i.e., beginning of normal operation) of the replacement boilers (B008 and B009), and the new emissions units, P157 and P158. The netting calculations are presented in Ohio EPA Permit to Install PTI #13-3149 for emissions units P157 and P158. The shake down period for the replacement emissions units shall not exceed one hundred eighty days. The following record keeping shall be maintained and quarterly summary reported to the Cleveland Division of Air Quality (Cleveland DAQ) showing the following:

   a) In all cases, for the operation of the coal fired boilers, the replacement boilers, and the new emissions units (P157 and P158), the actual particulate emissions (PE) increases shall not exceed a 15 ton per year increase based upon a rolling, 12-month summation of the monthly emissions. The permittee shall calculate and record the following information on a calendar year basis:

      (1) the actual annual PE of B008 and B009, tons per year;

      (2) the actual annual PE of P157, tons per year;

      (3) the actual annual PE of P158, tons per year; and

      (4) the total actual PE of B008, B009, P157, and P158, tons per year.

      See section C.47.f)(1)g. in B008/B009 and C.46.f)(1)f. in P157/158 for respective methods for calculating actual annual PE, in tons per year.

   b) Reporting Requirements

      By January 31 of each year, the permittee shall submit an annual deviation report to the

Cleveland Division of Air Quality (Cleveland DAQ) that identifies any exceedance of the annual PE limitation in 3.a) in this Part B Facility Wide Terms and Conditions.

If there was no exceedance of the annual PE limitation, the permittee shall submit a negative declaration to the Cleveland DAQ by January 31 of each year.

[Authority for term: OAC rule 3745-77-07(A)(13) and 40 CFR Part 51]

5. Beginning no later than the first substantive compliance date for the Industrial, Commercial and Institutional Boilers and Process Heaters MACT of 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 and fuel oil combustion);

   c) P033 (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.).

6. Beginning no later than 12 months prior to the first substantive compliance date for the Industrial, Commercial and Institutional Boilers and Process Heaters MACT, 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/2000 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.

b) Natural Gas and Fuel Oil 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 and bulk fuel purchases and 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 fuel oil and 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.

c) Emissions Unit P033 - Titanium Pickling (insignificant 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, 8760 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 8760 hrs/year x ton/2000 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.

d) 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.

7. 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 4.a) and 5.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; and

(4) the total facility wide HF emissions.

b) for the emissions units that combust natural gas and/or fuel oil usage identified in 4.b) above:

(1) the amount of natural gas (in mmcf) and fuel oil (in gallons) consumed for the entire facility;

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

8. 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 year, 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 year, 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.

9. 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)]

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

EU ID	Operations, Property and/or Equipment Description
P101	steel die heating furnace, OAC rule 3745-31-05(A)(3)(PTI#13-477)
P106	3,000 ton preforming press (uses no die lube), OAC rule 3745-31-05(A)(3) (PTI#13-1216)
P123	N-tech saw w/mist collector in bldg 202, OAC rule 3745-31-05(A)(3) (PTI#13-1837)
P124	#6 die preheat furnace in bldg 206, OAC rule 3745-31-05(A)(3) (PTI#13-1851)
T015	12,000 gallon above-ground storage tank for fuel oil, OAC rule 3745-31-05(A)(3) (PTI#13-2824)
T016	12,000 gallon above-ground storage tank for fuel oil, OAC rule 3745-31-05(A)(3) (PTI#13-2824)

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 8 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.

[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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

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) shall be used to demonstrate compliance. 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)]

(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.

[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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

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) shall be used to demonstrate compliance. 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. K002, Spray Booth - B53

Operations, Property and/or Equipment Description:

Building 53, carpenter shop paint spray booth followed by an air drying area to coat miscellaneous metal parts (controlled by a fiberglass filtration system)

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 #13-2153 issued June 19, 1991)	The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-09(U)(1)(d) and 3745-17-11(A)(1)(i). See b)(2)a.
b.	OAC rule 3745-17-11(A)(1)(i)	See b)(2)b.
c.	OAC rule 3745-21-09(U)(1)(d)	Any coating employed in this coating line shall not exceed 3.5 pounds of volatile organic compounds (VOC) per gallon of coating, excluding water and exempt solvents, as applied.

(2) Additional Terms and Conditions

a. The maximum daily average capacity of this coating line shall be 10 gallons of applied coatings per hour.

VOC emissions shall not exceed 2333 pounds of VOC per month (including cleanup material) and 14.3 tons of VOC per year (including 0.3 ton for cleanup).

b. This source is exempt from OAC rule 3745-17-11 because it is a surface coating process where actual coating usage is less than five gallons per day. The permittee shall maintain coating usage records, coating purchase records,

production records and/or any other records that clearly demonstrate the actual coating usage is less than five gallons per day.

c) Operational Restrictions

(1) The permittee shall operate the fiberglass filtration system whenever this emissions unit is in operation.

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

d) Monitoring and/or Recordkeeping Requirements

(1) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as the monitoring and record keeping requirements contained in Permit to Install #13-2153, issued on June 19, 1991: d)(2), d)(3) and d)(4). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC Rule 3745-77-07(A)(3)(a)(ii)]

(2) The permittee shall maintain daily records which list the following information for each surface coating employed in this emissions unit:

a. the company identification for each coating employed;

b. the number of gallons of each coating employed;

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

d. the average hourly volume usage rate for all coatings, calculated as (b)/(c), in gallons per hour (average).

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

(3) The permittee shall collect and record the following information each month:

a. the company identification for each coating and cleanup material employed;

b. the number of gallons of each coating and cleanup material employed;

c. the VOC content of each coating and cleanup material, in pounds per gallon;

d. the total VOC emission rate for all coatings and cleanup materials, in pounds per month, calculated as the sum of (b) x (c) for each coating and cleanup material; and

e. the VOC content of each coating, in pounds/gallon excluding water and exempt solvents, as applied.

[Authority for term: OAC rules 3745-77-07(C)(1) and 3745-21-09(B)]

(4) The permittee shall collect and record the following information each year for the purpose of determining annual VOC emissions:

a. annual VOC emissions, tons/year = (Sum of d)(3)d. for 12 months in a calendar year, lbs)/(2000 lbs/ton)

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

(5) The permittee shall maintain daily records that document any time periods when the fiberglass filtration system was not in service when the emissions unit was in operation.

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

e) Reporting Requirements

(1) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as the reporting requirements contained in Permit to Install #13-2153, issued on June 19, 1991: e)(2) through e)(5). The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-77-07(A)(3)(a)(ii)]

(2) The permittee shall notify the Cleveland Division of Air Quality (Cleveland DAQ) in writing of any monthly record showing the use of noncomplying coatings (i.e., for VOC content). The notification shall include a copy of such record and shall be sent to the Cleveland DAQ within 45 days following the end of the calendar month.

[Authority for term: OAC rule 3745-77-07(C)(1) and 3745-21-09(B) and OAC rule 3745-77-07(A)(3)(a)(ii)]

(3) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each deviation of the average hourly coating usage restriction and the monthly VOC emission rate of 2333 pounds of VOC per month. Each report shall include a copy of the record of the actual coating usage. These 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) and OAC rule 3745-77-07(A)(3)(a)(ii)]

(4) The permittee shall submit annual reports to the Cleveland DAQ that specify the total emissions of VOC from this emissions unit 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 this emissions unit in the annual Fee Emission Report.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-77-07(A)(3)(a)(ii)]

(5) The permittee shall notify the Cleveland DAQ in writing of any daily record showing that the fiberglass filtration system was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Cleveland DAQ within 30 days after the event occurs.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-77-07(A)(3)(a)(ii)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation:
3.5 pounds of VOC emissions per gallon of coating, excluding water and exempt solvents, as applied

Applicable Compliance Method:
Compliance shall be based on the record keeping in d)(3). The VOC content of the coatings shall be determined using USEPA Method 24 or 24A in 40 CFR, Part 60, Appendix A.

[Authority for term: OAC rules 3745-77-07(C)(1) and 3745-13-05(A)(3) PTI #13-2153 and OAC rule 3745-77-07(A)(3)(a)(ii)]

b. Emissions Limitations:
The maximum daily average capacity of this coating line shall be 10 gallons of applied coatings per hour.
VOC emissions shall not exceed 2333 pounds of VOC per month (including cleanup material).
VOC emissions shall not exceed 14.3 tons per year (including 0.3 ton for cleanup).

Applicable Compliance Method:
Compliance may be based on the record keeping in d)(3).

[Authority for term: OAC rules 3745-77-07(C)(1) and 3745-13-05(A)(3) PTI #13-2153 and OAC rule 3745-77-07(A)(3)(a)(ii)]

(2) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #13-2153, issued on June 19, 1991: f)(1)a. and f)(1)b. The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing

requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-77-07(A)(3)(a)(ii)]

g) Miscellaneous Requirements

(1) K002 and the fiberglass filtration system were installed in 1990.

4. 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(G)(1)	For the lubricants that come in contact with a 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)(4)	For the lubricants that come in contact with a 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.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
g.	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See b)(2)d. and b)(2)f.
h.	OAC rule 3745-21-07(M)	For the lubricants that do not come in contact with a flame, there are no applicable requirements from this rule.

(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 rules 3745-21-07(G)(1) and 21-07(M)(4) are applicable requirements for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rules 3745-21-07(G) and 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 rules 3745-21-07(G)(1) and 21-07(M)(4) are applicable requirements when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rules 3745-21-07(G) and 21-07(M) pursuant to OAC rules 3745-21-07(G)(9)(e) and 21-07(M)(5)(c) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

d. For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

e. As specified in OAC rules 3745-21-07(G)(9)(c) and 21-07(M)(5)(d), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rules 3745-21-07(G) and 21-07(M):

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

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

iii. the volatile content is not a photochemically reactive material.

f. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

b)(1)e., b)(1)g., b)(2)d., b)(2)e.iii, d)(4), e)(3), e)(4), f)(1)c and f)(1)d.

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).

[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 rules 3745-21-07(G) and 21-07(M) as specified in b)(2)e.; 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 rules 3745-21-07(G) and 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 rules 3745-21-07(G)(1) and 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.

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

(4) On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) 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).

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

(5) The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
E-1988	0.011	0.081	Y
FE4-329A	0.0308	0.0144	N
E-2505	0.011	0.081	Y
E-2207	0.011	0.081	Y
E-2503	0.011	0.081	Y
E-2302	0.011	0.081	Y

*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. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

[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.

[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 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.

[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 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 rules 3745-21-07(G) and 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 rules 3745-21-07(G) and 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 (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 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)]

(4) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

[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 each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

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

(6) 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)]

(7) 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)]

(8) 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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitations:
for the lubricants that come in contact with a 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)(1), d)(3) and d)(5).

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 Limitations:
for the lubricants that come in contact with a 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)(1), d)(3) and d)(5).

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

c. Emission Limitations:
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1), d)(4) and d)(5).

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)]

d. Emission Limitations:
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1), d)(4) and d)(5).

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

e. 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).

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)]

f. 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)]

g. 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)]

(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, P024, P029 and P030 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, P024, P029 and P030.

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 come in contact with a flame and worst case lubricants that do not come in contact with a 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)]

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)]

5. 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(G)(1)	For the lubricants that come in contact with a 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)(4)	For the lubricants that come in contact with a 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.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
g.	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See b)(2)d. See b)(2)f.
h.	OAC rule 3745-21-07(M)	For the lubricants that do not come in contact with a flame, there are no applicable requirements from this rule.

(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 rules 3745-21-07(G)(1) and 21-07(M)(4) are applicable requirements for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rules 3745-21-07(G) and 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 rules 3745-21-07(G)(1) and 21-07(M)(4) are applicable requirements when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rules 3745-21-07(G) and 21-07(M) pursuant to OAC rules 3745-21-07(G)(9)(e) and 21-07(M)(5)(c) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

d. For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

e. As specified in OAC rules 3745-21-07(G)(9)(c) and 21-07(M)(5)(d), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rules 3745-21-07(G) and 21-07(M):

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

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

iii. the volatile content is not a photochemically reactive material.

f. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

b)(1)e., b)(1)g., b)(2)e.iii, d)(4), e)(3), e)(4), f)(1)c and f)(1)d.

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).

[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 rules 3745-21-07(G) and 21-07(M) as specified in b)(2)e.; 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 rules 3745-21-07(G) and 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 rules 3745-21-07(G)(1) and 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.

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

(4) On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) 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).

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

(5) The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
E-1988	0.0098, 0.0099	0.074, 0.121	Y
FE4-329A	0.0308	0.0144	N
E-2505	0.011	0.081	Y
E-2207	0.011	0.081	Y
E-2503	0.011	0.081	Y
E-2302	0.011	0.081	Y
E-1197	0.011	0.121	Y
E-2543	0.011	0.121	Y
E-3241	0.0011	0.0078	N
FE4-332A	0.0023	0.0082	N
E-2643	0.0004	0.0099	N

*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. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

[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.

[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 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.

[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 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 rules 3745-21-07(G) and 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 rules 3745-21-07(G) and 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 (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 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)]

(4) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

[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 each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

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

(6) 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)]

(7) 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)]

(8) 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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitations:
for the lubricants that come in contact with a 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)(1), d)(3) and d)(5).

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 Limitations:
for the lubricants that come in contact with a 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)(1), d)(3) and d)(5).

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

c. Emission Limitations:
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1), d)(4) and d)(5).

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)]

d. Emission Limitations:
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1), d)(4) and d)(5).

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

e. 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).

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)]

f. 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)]

g. 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)]

(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, P024, P029 and P030 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, P024, P029 and P030.

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 come in contact with a flame and worst case lubricants that do not come in contact with a 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)]

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)]

6. P013, Press 8002/2500

Operations, Property and/or Equipment Description:

Building 112A, number 8002 and number 2500 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(G)(1)	For the lubricants that come in contact with a 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)(4)	For the lubricants that come in contact with a 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.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
g.	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See b)(2)d. See b)(2)f.
h.	OAC rule 3745-21-07(M)	For the lubricants that do not come in contact with a flame, there are no applicable requirements from this rule.

(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 rules 3745-21-07(G)(1) and 21-07(M)(4) are applicable requirements for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rules 3745-21-07(G) and 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 rules 3745-21-07(G)(1) and 21-07(M)(4) are applicable requirements when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rules 3745-21-07(G) and 21-07(M) pursuant to OAC rules 3745-21-07(G)(9)(e) and 21-07(M)(5)(c) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

d. For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

e. As specified in OAC rules 3745-21-07(G)(9)(c) and 21-07(M)(5)(d), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rules 3745-21-07(G) and 21-07(M):

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

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

iii. the volatile content is not a photochemically reactive material.

f. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

b)(1)e., b)(1)g., b)(2)d., b)(2)e.iii, d)(4), e)(3), e)(4), f)(1)c and f)(1)d.

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).

[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 rules 3745-21-07(G) and 21-07(M) as specified in b)(2)e.; 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 rules 3745-21-07(G) and 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 rules 3745-21-07(G)(1) and 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.

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

(4) On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) 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).

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

(5) The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
E-1988	0.0099, 0.0098	0.074, 0.121	Y
FE4-329A	0.0308	0.0144	N
E-2505	0.011	0.081	Y
E-2207	0.011	0.081	Y
E-2503	0.011	0.081	Y
E-2302	0.011	0.081	Y
E-1197	0.011	0.121	Y
E-2543	0.011	0.121	Y
E-3241	0.0011	0.0078	Y
FE4-332A	0.0023	0.0082	N
E-2643	0.0004	0.0099	N

*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. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

[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.

[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 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.

[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 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 rules 3745-21-07(G) and 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 rules 3745-21-07(G) and 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 (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 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)]

(4) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

[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 each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

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

(6) 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)]

(7) 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)]

(8) 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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitations:
for the lubricants that come in contact with a 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)(1), d)(3) and d)(5).

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 Limitations:
for the lubricants that come in contact with a 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)(1), d)(3) and d)(5).

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

c. Emission Limitations:
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1), d)(4) and d)(5).

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)]

d. Emission Limitations:
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1), d)(4) and d)(5).

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

e. 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).

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)]

f. 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)]

g. 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)]

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, P024, P029 and P030 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, P024, P029 and P030.

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 come in contact with a flame and worst case lubricants that do not come in contact with a 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)]

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.

[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)]

7. 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(G)(1)	For the lubricants that come in contact with a 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)(4)	For the lubricants that come in contact with a 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.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
g.	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See b)(2)d. and b)(2)f.
h.	OAC rule 3745-21-07(M)	For the lubricants that do not come in contact with a flame, there are no applicable requirements from this rule.

(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 rules 3745-21-07(G)(1) and 21-07(M)(4) are applicable requirements for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rules 3745-21-07(G) and 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 rules 3745-21-07(G)(1) and 21-07(M)(4) are applicable requirements when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rules 3745-21-07(G) and 21-07(M) pursuant to OAC rules 3745-21-07(G)(9)(e) and 21-07(M)(5)(c) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

d. For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

e. As specified in OAC rules 3745-21-07(G)(9)(c) and 21-07(M)(5)(d), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rules 3745-21-07(G) and 21-07(M):

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

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

iii. the volatile content is not a photochemically reactive material.

f. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

b)(1)e., b)(1)g., b)(2)d., b)(2)e.iii, d)(4), e)(3), e)(4), f)(1)c and f)(1)d.

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).

[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 rules 3745-21-07(G) and 21-07(M) as specified in b)(2)e.; 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 rules 3745-21-07(G) and 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 rules 3745-21-07(G)(1) and 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.

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

(4) On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) 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).

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

(5) The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
E-1988	0.011	0.081	Y
E-2207	0.011	0.081	Y
E-2503	0.011	0.081	Y
E-2302	0.011	0.081	Y
E-1197	0.011	0.121	Y
E-2543	0.011	0.121	Y
E-2643	0.0004	0.0099	N

*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. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

[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.

[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 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.

[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 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 rules 3745-21-07(G) and 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 rules 3745-21-07(G) and 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 (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 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)]

(4) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

[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 each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

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

(6) 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)]

(7) 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)]

(8) 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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitations:
for the lubricants that come in contact with a 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)(1), d)(3) and d)(5).

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 Limitations:
for the lubricants that come in contact with a 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)(1), d)(3) and d)(5).

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

c. Emission Limitations:
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1), d)(4) and d)(5).

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)]

d. Emission Limitations:
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1), d)(4) and d)(5).

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

e. 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).

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)]

f. 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)]

g. 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)]

(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, P024, P029 and P030 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, P024, P029 and P030.

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 come in contact with a flame and worst case lubricants that do not come in contact with a 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)]

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)]

8. P024, Press 3003

Operations, Property and/or Equipment Description:

Building 101, number 3003 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(G)(1)	For the lubricants that come in contact with a 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)(4)	For the lubricants that come in contact with a 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.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
g.	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See b)(2)d. See b)(2)f.
h.	OAC rule 3745-21-07(M)	For the lubricants that do not come in contact with a flame, there are no applicable requirements from this rule.

(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 rules 3745-21-07(G)(1) and 21-07(M)(4) are applicable requirements for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rules 3745-21-07(G) and 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 rules 3745-21-07(G)(1) and 21-07(M)(4) are applicable requirements when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rules 3745-21-07(G) and 21-07(M) pursuant to OAC rules 3745-21-07(G)(9)(e) and 21-07(M)(5)(c) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

d. For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

e. As specified in OAC rules 3745-21-07(G)(9)(c) and 21-07(M)(5)(d), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rules 3745-21-07(G) and 21-07(M):

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

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

iii. the volatile content is not a photochemically reactive material.

f. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

b)(1)e., b)(1)g., b)(2)d., b)(2)e.iii, d)(4), e)(3), e)(4), f)(1)c and f)(1)d.

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).

[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 rules 3745-21-07(G) and 21-07(M) as specified in b)(2)e.; 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 rules 3745-21-07(G) and 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 rules 3745-21-07(G)(1) and 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.

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

(4) On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) 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).

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

(5) The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
E-1988	0.011	0.081	Y
E-2207	0.011	0.081	Y
E-1197	0.011	0.121	Y
E-2543	0.011	0.121	Y
E-2643	0.0004	0.0099	N

*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. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

[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.

[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 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.

[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 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 rules 3745-21-07(G) and 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 rules 3745-21-07(G) and 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 (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 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)]

(4) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

[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 each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

(6) 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)]

(7) 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)]

(8) 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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitations:
for the lubricants that come in contact with a 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)(1), d)(3) and d)(5).

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 Limitations:
for the lubricants that come in contact with a 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)(1), d)(3) and d)(5).

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

c. Emission Limitations:
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1), d)(4) and d)(5).

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)]

d. Emission Limitations:
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1), d)(4) and d)(5).

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

e. 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).

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)]

f. 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)]

g. 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)]

(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, P024, P029 and P030 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, P024, P029 and P030.

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 come in contact with a flame and worst case lubricants that do not come in contact with a 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)]

g) Miscellaneous Requirements

(1) Emissions are exhausted through a vertical stack at a nominal exit gas flow rate of 56,687 ACFM. P024 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)]

9. 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(G)(1)	For the lubricants that come in contact with a 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)(4)	For the lubricants that come in contact with a 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.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
g.	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See b)(2)d. See b)(2)f.
h.	OAC rule 3745-21-07(M)	For the lubricants that do not come in contact with a flame, there are no applicable requirements from this rule.

(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 rules 3745-21-07(G)(1) and 21-07(M)(4) are applicable requirements for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rules 3745-21-07(G) and 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 rules 3745-21-07(G)(1) and 21-07(M)(4) are applicable requirements when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rules 3745-21-07(G) and 21-07(M) pursuant to OAC rules 3745-21-07(G)(9)(e) and 21-07(M)(5)(c) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

d. For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

e. As specified in OAC rules 3745-21-07(G)(9)(c) and 21-07(M)(5)(d), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rules 3745-21-07(G) and 21-07(M):

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

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

iii. the volatile content is not a photochemically reactive material.

f. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

b)(1)e., b)(1)g., b)(2)d., b)(2)e.iii, d)(4), e)(3), e)(4), f)(1)c and f)(1)d.

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).

[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 rules 3745-21-07(G) and 21-07(M) as specified in b)(2)e.; 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 rules 3745-21-07(G) and 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 rules 3745-21-07(G)(1) and 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.

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

(4) On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) 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).

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

(5) The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
E-1988	0.011	0.081	Y
FE4-329A	0.0308	0.0144	N
E-2505	0.011	0.081	Y
E-2451	0.011	0.081	Y
E-2503	0.011	0.081	Y
E-2302	0.011	0.081	Y
E-1197	0.011	0.121	Y

*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 particualte 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. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

[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.

[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 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.

[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 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 rules 3745-21-07(G) and 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 rules 3745-21-07(G) and 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 (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 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)]

(4) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

[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 each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

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

(6) 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)]

(7) 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)]

(8) 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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitations:
for the lubricants that come in contact with a 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)(1), d)(3) and d)(5).

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 Limitations:
for the lubricants that come in contact with a 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)(1), d)(3) and d)(5).

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

c. Emission Limitations:
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1), d)(4) and d)(5).

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)]

d. Emission Limitations:
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1), d)(4) and d)(5).

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

e. 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).

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)]

f. 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)]

g. 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)]

(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, P024, P029 and P030 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, P024, P029 and P030.

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 come in contact with a flame and worst case lubricants that do not come in contact with a 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)]

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)]

10. 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(G)(1)	For the lubricants that come in contact with a 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)(4)	For the lubricants that come in contact with a 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.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
g.	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See b)(2)d. See b)(2)f.
h.	OAC rule 3745-21-07(M)	For the lubricants that do not come in contact with a flame, there are no applicable requirements from this rule.

(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 rules 3745-21-07(G)(1) and 21-07(M)(4) are applicable requirements for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rules 3745-21-07(G) and 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 rules 3745-21-07(G)(1) and 21-07(M)(4) are applicable requirements when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rules 3745-21-07(G) and 21-07(M) pursuant to OAC rules 3745-21-07(G)(9)(e) and 21-07(M)(5)(c) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

d. For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

e. As specified in OAC rules 3745-21-07(G)(9)(c) and 21-07(M)(5)(d), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rules 3745-21-07(G) and 21-07(M):

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

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

iii. the volatile content is not a photochemically reactive material.

f. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

b)(1)e., b)(1)g., b)(2)d., b)(2)e.iii, d)(4), e)(3), e)(4), f)(1)c and f)(1)d.

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).

[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 rules 3745-21-07(G) and 21-07(M) as specified in b)(2)e.; 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 rules 3745-21-07(G) and 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 rules 3745-21-07(G)(1) and 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.

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

(4) On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) 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).

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

(5) The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
E-1988	0.011	0.081	Y
FE4-329A	0.0308	0.0144	N
E-2505	0.011	0.081	Y
E-2451	0.011	0.081	Y
E-2503	0.011	0.081	Y
E-2302	0.011	0.081	Y
E-1197	0.011	0.121	Y

*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 particualte 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. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

[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.

[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 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.

[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 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 rules 3745-21-07(G) and 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 rules 3745-21-07(G) and 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 (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 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)]

(4) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

[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 each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

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

(6) 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)]

(7) 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)]

(8) 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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitations:
for the lubricants that come in contact with a 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)(1), d)(3) and d)(5).

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 Limitations:
for the lubricants that come in contact with a 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)(1), d)(3) and d)(5).

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

c. Emission Limitations:
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1), d)(4) and d)(5).

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)]

d. Emission Limitations:
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1), d)(4) and d)(5).

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

e. 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).

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)]

f. 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)]

g. 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)]

(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, P024, P029 and P030 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, P024, P029 and P030.

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 come in contact with a flame and worst case lubricants that do not come in contact with a 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)]

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)]

11. P032, Torch Pit #1

Operations, Property and/or Equipment Description:

Building 206, acetylene arc system - torch pit number 1 (east). Particulate emissions (PE) are controlled by a cartridge 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 any 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 7.58 lbs/hr.

(2) Additional Terms and Conditions

a. 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) Material collected by the cartridge dust collector shall be handled in such a way there shall be no emission of fugitive dust.

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

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. 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:

a. a description of the corrective action;

b. the date corrective action was completed;

c. the date and time the deviation ended;

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

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

f. 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 perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the cartridge dust collector 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 location and color of the emissions;

b. whether the emissions are representative of normal operations;

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

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

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

[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 cartridge dust collector 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 Division of Air Quality (Cleveland DAQ) that (a) identify all days during which any visible particulate emissions were observed from the cartridge dust collector 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)]

(2) 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)(2)a. (above) where a prompt investigation was not conducted;

d. each incident of deviation described in e)(2)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)(2)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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation:
Visible particulate emissions from the cartridge dust collector 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)]

b. Emission Limitation:
Particulate emissions (PE) shall not exceed 7.58 lbs/hr.

Applicable Compliance Method:
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). See f)(2) below.

[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 P032 and P432 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 within 12 months of permit issuance for one of the following identical emissions units P032 and P432.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PE 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. 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.

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

g) Miscellaneous Requirements

(1) P032 and a scrubber were installed in 1967. The cartridge dust collector replaced the scrubber in 1981.

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

12. 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 8 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.

*This emission factor is based on prior emission testing; may be updated based on additional emission tests performed in accordance with f)(2) in any of the identical emissions units P055, P102, and P402.

[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.

[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.

[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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

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 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) shall be used to demonstrate compliance. 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).

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)]

13. P054, Furnace HT - #5 Dispatch (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 8 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.

*This emission factor is based on prior emission testing; may be updated based on additional emission tests performed in accordance with f)(2) in any of the identical emissions units P055, P102, and P402.

[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.

[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.

[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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

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) shall be used to demonstrate compliance. 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).

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)]

14. 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 8 lbs/hr of hydrogen scavenger (Particulate emissions (PE) are vented through a cartridge 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.

*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.

[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.

[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. 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:

a. a description of the corrective action;

b. the date corrective action was completed;

c. the date and time the deviation ended;

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

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

f. 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)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

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) shall be used to demonstrate compliance. 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.

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, 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, 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.

P055 is both a fugitive dust source and a stack source.

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

15. P083, Furnace T-1 B101

Operations, Property and/or Equipment Description:

Building 101, 8.00 mmBtu/hr, direct heat, natural gas-fired titanium preheat furnace (number T-1), and not using hydrogen scavenger.

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)c.

(2) Additional Terms and Conditions

a. The permittee shall employ reasonably available control measures (RACM) for this emissions unit that includes, but is not limited to, tuning and maintaining the natural gas burners to minimize fugitive dust.

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 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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

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 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) shall be used to demonstrate compliance. 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) P083 was installed in October 1967.

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

16. P086, Blast-T Whl B206

Operations, Property and/or Equipment Description:

Building 206, titanium grit blasting machine in an enclosed booth (Particulate emissions (PE) are controlled by a baghouse 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 emisssions from any 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 2.20 lbs/hr, based upon Figure II.

(2) Additional Terms and Conditions

a. 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) 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. 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:

a. a description of the corrective action;

b. the date corrective action was completed;

c. the date and time the deviation ended;

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

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

f. 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 maintain copies of all the stack test results used to develop each PE factor. The permittee may develop uncontrolled and actual PE factors based on stack emission testing, such as lb PE/lb metal cleaned.

In the May 8, 1974 stack test, 11.0 lbs/hr of PE were generated at the inlet to the Rotoclone scrubber when titanium castings were cleaned by shot blasting.

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

(4) The permittee shall collect and record the following information on a monthly basis:

a. the amount of metal cleaned, in pounds;

b. the actual particulate emission factor, lbs PE/lb metal cleaned;

c. the operating hours of this emissions unit; and

d. the average actual PE rate for this emissions unit, in lbs/hr, i.e., (a) x (b)/(c).

[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 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.

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

(6) 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 quarterly deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify all periods of time during which the average hourly PE rate did not comply with the allowable PE limit specified above 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 baghouse 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 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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. 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 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:
PE shall not exceed 2.20 lbs/hr.

Applicable Compliance Method:
Compliance may be determined pursuant to the monitoring and record keeping in d)(4). A PE factor in lb PE/lb metal cleaned will be 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 from the Cleveland DAQ.

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)]

(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 P086, P108 and P163 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 12 months of permit issuance for one of the following identical emissions units P086, P108 and P163 .

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulate emissions 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.

Emissions tests for PE shall also be performed at the inlet of the control device for purposes of determining the uncontrolled mass emission rates (UMRE) and the allowable emission rate from Figure II of OAC rule 3745-11-17.

A particulate emissions test also shall be conducted at the inlet of the control device to determine the uncontrolled mass rate of emission for the emissions unit, for purposes of applying Figure II of OAC rule 3745-17-11. For this testing, the following test methods shall be employed to demonstrate compliance with the emission limitations: 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.

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) P086 and a Rotoclone scrubber were installed in 1966. A baghouse replaced the Rotoclone in 1976.

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

17. 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 #13-016 issued April 3, 1974) (Issued under Chapter EP-30)	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.

(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.

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) None.

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)]

18. 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 #13-425 issued May 16, 1978)	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.

(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.

c) Operational Restrictions

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

[Authority for term: OAC rule 3745-77-07(C)(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) None.

g) Miscellaneous Requirements

(1) P100 was installed in 1978 and is a stack source.

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

19. 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 8 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.
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.

*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.

[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.

[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. 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:

a. a description of the corrective action;

b. the date corrective action was completed;

c. the date and time the deviation ended;

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

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

f. 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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

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) shall be used to demonstrate compliance. 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.

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, 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, 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.

P102 is both a fugitive source and stack source.

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

20. P104, Press 8003/2583

Operations, Property and/or Equipment Description:

Building 112A, number 8003, 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 lubricant usage of 250 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) 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 #13-04711 issued May 15, 2007)	Particulate emissions (PE)/PM10 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/PM10 emissions shall not exceed 1.42 tons/year. For lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3.43 lbs/hr and 14.98 tons/year. For lubricants that come in contact with a flame, the permittee shall achieve an overall reduction of 85% by weight of OC emissions generated by this emissions unit. For lubricants that do not come in contact with a flame, the OC emissions shall not exceed 7.30 tons/year. See b)(2)f. 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), 3745-21-07(G)(1) and 3745-21-07(G)(2).
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(G)(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). See b)(2)b.
g.	OAC rule 3745-21-07(M)(4)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). See b)(2)b.
h.	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See b)(2)c. See b)(2)e.
i.	OAC rule 3745-21-07(M)	For the lubricants that do not come in contact with a 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 in the EFB. 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 rules 3745-21-07(G)(1) and 21-07(M)(4) are applicable requirements for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rules 3745-21-07(G) and 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 rules 3745-21-07(G)(1) and 21-07(M)(4) are applicable requirements when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rules 3745-21-07(G) and 21-07(M) pursuant to OAC rules 3745-21-07(G)(9)(e) and 21-07(M)(5)(c) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

c. For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

d. As specified in OAC rules 3745-21-07(G)(9)(c) and 21-07(M)(5)(d), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rules 3745-21-07(G) and 21-07(M):

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

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

   iii. the volatile content is not a photochemically reactive material.

e. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

   b)(1)f., b)(1)h., b)(2)c., b)(2)d.iii, d)(4), e)(2), e)(3), f)(1)b and f)(1)c.

f. 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) 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 PM10 factor for each lubricant employed, in pounds of PM10 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 PM10 rate for all lubricants employed, in pounds of PM10 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).

* The permittee shall conduct emission testing to develop PE and/or PM10 emission factors for any new lubricant employed unless the permittee assumes that all of the PE and/or PM10 in the lubricant is emitted.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) PTI #13-04711]

(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 rules 3745-21-07(G) and 21-07(M) as specified in b)(2)e.; 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) PTI #13-04711]

(3) On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rules 3745-21-07(G) and 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 rules 3745-21-07(G)(1) and 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.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) PTI #13-04711]

(4) On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) 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).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) PTI #13-04711]

(5) On each day during which a liquid organic lubricant 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 lubricant utilized has demonstrated through emission testing that at least an 85% reduction in OC emissions would be achieved for each lubricant employed.

* The permittee shall conduct emission testing to develop OC emission factors for any new lubricant employed.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) PTI #13-04711]

(6) The permittee shall maintain copies of all the stack test results used to develop the OC, PE, and PM10 emission factors.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) PTI #13-04711]

(7) 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.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) PTI #13-04711]

(8) 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.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) PTI #13-04711]

(9) 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) PTI #13-04711]

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) PTI #13-04711]

(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(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 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) and OAC rule 3745-31-05(A)(3) PTI #13-04711]

(3) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) PTI #13-04711]

(4) 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 PM10 rate exceeded the limit in b)(1) and the actual average hourly PE and/or PM10 rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) PTI #13-04711]

(5) 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) PTI #13-04711]

(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 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) PTI #13-04711]

(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 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) PTI #13-04711]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitations:
For lubricants that come in contact with a 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)(1), d)(3) and d)(5).

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) PTI #13-04711]

b. Emission Limitations:
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1)and d)(4).

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)]

c. Emission Limitations:
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1) and d)(4).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) PTI #13-04711]

d. Emission Limitation:

For lubricants that come in contact with a 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 come into contact with a 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 come into contact with a flame.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) PTI #13-04711]

e. Emission Limitation:

For lubricants that do not come in contact with a flame, the OC emissions shall not exceed 7.30 tons/year.

Applicable Compliance Method:

The annual emission limitation was established by multiplying the maximum daily

emission rate for lubricants that do not come into contact with a flame (40

lbs/day) by 365 days per year and dividing by 2,000 pounds per ton. Therefore, provided compliance is maintained with the pounds per day limitation, compliance with the annual emission limitation shall also be demonstrated for lubricants that do not come into contact with a flame.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) PTI #13-04711]

f. Emission Limitations:

PE/PM10 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 mass emission limitation shall be demonstrated by using Methods 1 through 5, 210 or 201A, as applicable, and 202, as 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) PTI #13-04711]

g. Emission Limitations:

PE/PM10 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) PTI #13-04711]

h. Emission Limitations:

Fugitive PE/PM10 emissions shall not exceed 1.42 tons/year.

Applicable Compliance Method:

The emission limitation was developed by multiplying the maximum annual PE/PM10 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) PTI #13-04711]

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) PTI #13-04711]

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) PTI #13-04711]

(2) The emission testing shall be conducted within 24 months after startup of the emissions unit while employing emission reducing lubricants.

The emission testing shall be conducted to demonstrate compliance with the allowable concentration of PE, PM10, and OCs in the exhaust stream

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

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

For PM10, Methods 1 through 4, 201 or 201A, as applicable, and 202 of 40 CFR Part 60, Appendix A; and

For OCs, Methods 1 through 4 and 25, 25A or 25B, as applicable, of 40 CFR Part 60, Appendix A. (An alternative modified Test Method 18 was approved in a November 19, 1984 letter from the Director of Air Management Division, U.S. EPA 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.)

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) PTI #13-04711]

g) Miscellaneous Requirements

(1) P104 and the EFB were installed in 1982.

[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)]

21. 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)]

(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.

[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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

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 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) shall be used to demonstrate compliance. 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)]

22. 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 8 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.

[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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

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 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) shall be used to demonstrate compliance. 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)]

23. P108, Blast #1 Whl B114

Operations, Property and/or Equipment Description:

Building 114A, number 1 Wheelabrator shot blast cabinet (Particulate emissions (PE) are controlled by a wet type, Rotoclone impaction scrubber.)

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.
b.	OAC rule 3745-17-11(B)	Particulate emissions (PE) shall not exceed 2.9 lbs/hr, based upon Figure II.

(2) Additional Terms and Conditions

a. The emissions from this emissions unit shall be vented to the wet scrubber at all times the emissions unit is in operation.

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 or limit for the pressure drop across the scrubber and the scrubber liquid flow rate shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range for each parameter is established to demonstrate compliance.

[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 across the scrubber (in pounds per square inch, gauge) and the

scrubber liquid flow rate (in gallons per minute) during operation of this/these emissions unit(s), including periods of startup and shutdown. The permittee shall record the pressure drop across the scrubber and the scrubber liquid's flow rate on a daily basis. 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. The acceptable range or limit for the pressure drop across the scrubber and the scrubber liquid flow rate shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range for each parameter is established to demonstrate compliance.

Whenever the monitored value for any parameter deviates from the range(s) or minimum limit(s) 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 control equipment parameters within the acceptable range(s), or at or above the minimum limit(s) 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:

a. a description of the corrective action;

b. the date the corrective action was completed;

c. the date and time the deviation ended;

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

e. the pressure drop and flow rate readings immediately after the corrective action was implemented; and

f. 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.

These range(s) and/or limit(s) for the pressure drop and liquid flow rate are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Cleveland DAQ. The permittee may request revisions to the permitted range or limit for the pressure drop or liquid flow rate based upon information obtained during future performance tests that demonstrate compliance with the allowable particulate emission rate for this/these emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

[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 each PE factor. The permittee may develop uncontrolled and actual PE factors based on stack emission testing, such as lb PE/lb metal cleaned.

In the May 8, 1974 stack test, 11.0 lbs/hr of PE were generated at the inlet to the Rotoclone scrubber when titanium castings were cleaned by shot blasting.

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

(4) The permittee shall collect and record the following information on a monthly basis:

a. the amount of metal cleaned, in pounds;

b. the actual particulate emission factor, lbs PE/lb metal cleaned;

c. the operating hours of this emissions unit; and

d. the average actual PE rate for this emissions unit, in lbs/hr, i.e., (a) x (b)/(c).

[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 scrubber 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.

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

(6) 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 scrubber 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 all periods of time during which the average hourly PE rate did not comply with the allowable PE limit specified above 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 scrubber 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 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 scrubber and/or the liquid flow rate was/were outside of the appropriate range or exceeded the applicable limit contained in this permit;

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 scrubber;

c. each incident of deviation described in e)(3)a. or e)(3)b. (above) where a prompt investigation was not conducted;

d. each incident of deviation described in e)(3)a. or e)(3)b. where prompt corrective action, that would bring the pressure drop and/or liquid flow rate 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. or e)(3)b. 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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. 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 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:
PE shall not exceed 2.9 lbs/hr.

Applicable Compliance Method:
Compliance may be determined pursuant to the monitoring and record keeping in d)(3). A PE factor in lb PE/lb metal cleaned will be 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 from the Cleveland DAQ.

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)]

(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 P086, P108 and P163 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 12 months of permit issuance for one of the following identical emissions units P086, P108 and P163.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulate emissions 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.

Emissions tests for PE shall also be performed at the inlet of the control device for purposes of determining the uncontrolled mass emission rates (UMRE) and the allowable emission rate from Figure II of OAC rule 3745-11-17.

A particulate emissions test also shall be conducted at the inlet of the control device to determine the uncontrolled mass rate of emission for the emissions unit, for purposes of applying Figure II of OAC rule 3745-17-11. For this testing, the following test methods shall be employed to demonstrate compliance with the emission limitations: 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.

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) P108 and a Rotoclone impaction scrubber were installed in 1962.

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

24. 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)]

(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.

[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 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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

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) shall be used to demonstrate compliance. 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) 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 (8760 hrs/yr)/(2000 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

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) 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)]

25. 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)]

(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.

[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 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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

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) shall be used to demonstrate compliance. 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) 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 (8760 hrs/yr)/(2000 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

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) 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)]

26. 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).
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, 1000 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/2000 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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

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) PTI#13-1922]

b. Emission Limitation:
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 (8760 hours/year) x (ton/2000 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) 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) 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) 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) PTI#13-1922]

27. 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 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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

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) 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 (1,000 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 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) PTI#13-3008]

c. Emission Limitation:
Particulate emissions (PE) shall not exceed 0.342 lbs/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) 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 8760 hours per year and dividing by 2000 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) 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 (1,000 Btu/cu. ft.).

Actual NO_X, lbs/mmBtu = (100 lbs of NO_X/mm cu. ft.)/(1,000 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) 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) 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 8760 hours per year and dividing by 2000 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) 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) PTI#13-3008]

28. 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/Requ	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.
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, 1000 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/2000 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)]

(3) The permittee shall submit annual reports to the Cleveland DAQ that specify the total emissions of SO_2, NO_X, CO, and TOC from this emissions unit 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 this emissions unit in the annual Fee Emission Report.

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

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

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) 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 (1,000 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, 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) PTI#13-3010]

c. Emission Limitation:
Particulate emissions (PE) shall not exceed 1.63 tons/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) PTI#13-3010]

d. Emission Limitation:
Sulfur dioxide (SO_2) emissions shall not exceed 0.05 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) PTI#13-3010]

e. Emission Limitation:
Nitrogen oxides (NO_X) emissions shall not exceed 11.4 tons/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) PTI#13-3010]

f. Emission Limitation:
Carbon monoxide (CO) emissions shall not exceed 2.9 tons/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) PTI#13-3010]

g. Emission Limitation:
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) 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) PTI#13-3010]

29. 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 8 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(C)(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**)/(1000 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**)/(1000 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)(2).

**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.

[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.

[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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

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) 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).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) 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.)]/(2000 lbs/ton)

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) 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) 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 8760 hours per year and dividing by 2000 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) 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).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) 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 8760 hours per year and dividing by 2000 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) 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) PTI#13-3180]

30. 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 #13-3811 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) 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) 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) PTI #13-03811]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

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) PTI#13-3811]

b. Emission Limitations:
Emissions from the combustion of natural gas shall not exceed:
0.41 pound PE/hour, 1.80 ton PE/year
0.30 pound VOC/hour, 1.31 ton 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/mmft3).

The annual emission limitation was established by multiplying the pound per hour allowable for each pollutant by the maximum operating schedule of 8760 hours per year and dividing by 2000 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) PTI#13-3811]

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) PTI#13-3811]

31. P163, Small Wheelabrator Shotblaster B206

Operations, Property and/or Equipment Description:

Small Wheelabrator shotblaster which uses steel shot to clean and de-bur aircraft metal parts, the maximum process weight rate is 10,000 lbs per hour of metal (Particulate emissions (PE) are controlled by a baghouse 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 3745-31-05(A)(3) (PTI #13-3890 issued May 24, 2005)	Visible particulate emissions from any stack shall not exceed 5% opacity, as a 6-minute average. Particulate emissions (PE) shall not exceed 0.015 grain/dry standard cubic foot (gr/DSCF) of exhaust gas, 0.437 lb/hr and 1.19 tons/yr.
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).

(2) Additional Terms and Conditions

a. 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) 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 1.0 to 8.0 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. 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:

a. a description of the corrective action;

b. the date corrective action was completed;

c. the date and time the deviation ended;

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

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

f. 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 maintain copies of all the stack test results used to develop each PE factor. The permittee may develop uncontrolled and actual PE factors based on stack emission testing, such as lb PE/lb metal cleaned.

In the May 8, 1974 stack test, 11.0 lbs/hr of PE were generated at the inlet to the Rotoclone scrubber when titanium castings were cleaned by shot blasting.

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

(4) The permittee shall collect and record the following information on a monthly basis:

a. the amount of metal cleaned, in pounds;

b. the actual particulate emission factor, lbs PE/lb metal cleaned;

c. the operating hours of this emissions unit; and

d. the average actual PE rate for this emissions unit, in lbs/hr, i.e., (a) x (b)/(c).

[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 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.

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

(6) 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 quarterly deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify all periods of time during which the average hourly PE rate did not comply with the allowable PE limit specified above 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 baghouse 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 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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

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) PTI#13-3890]

b. Emission Limitation:
Particulate emissions (PE) shall not exceed 0.015 grain per DSCF of exhaust gas or 0.437 lb/hr.

Applicable Compliance Method:

Compliance may be determined pursuant to the monitoring and record keeping in d)(4).

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) PTI#13-3890]

c. Emission Limitation:
Particulate emissions (PE) shall not exceed 1.91 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 8760 hours per year and dividing by 2000 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) PTI#13-3890]

(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 P086, P108 and P163 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 12 months of permit issuance for one of the following identical emissions units P086, P108 and P163.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulate emissions 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.

Emissions tests for PE shall also be performed at the inlet of the control device for purposes of determining the uncontrolled mass emission rates (UMRE) and the allowable emission rate from Figure II of OAC rule 3745-11-17.

A particulate emissions test also shall be conducted at the inlet of the control device to determine the uncontrolled mass rate of emission for the emissions unit, for purposes of applying Figure II of OAC rule 3745-17-11. For this testing, the following test methods shall be employed to demonstrate compliance with the emission limitations: 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.

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) and OAC rule 3745-31-05(A)(3) PTI#13-3890]

g) Miscellaneous Requirements

(1) P163 was modified in February 2002 to add a new stack. The baghouse was installed in January 1960.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) PTI#13-3890]

32. P164, 5082 Blocking Press

Operations, Property and/or Equipment Description:

Building 112, 5000 tons blocking press 5082 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), 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 13-3882 issued March 7, 2002)	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), 3745-21-07(G)(1), and 3745-21-07(G)(2).
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).
d.	OAC rule 3745-21-07(G)(1)	For the lubricants that come in contact with a flame, the 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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		unit. See b)(2)a.
e.	OAC rule 3745-21-07(M)(4)	For the lubricants that come in contact with a 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.
f.	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See b)(2)b. See b)(2)d.
g.	OAC rule 3745-21-07(M)	For the lubricants that do not come in contact with a flame, there are no applicable requirements from this rule.

(2) Additional Terms and Conditions

a. The Ohio EPA has determined that OAC rules 3745-21-07(G)(1) and 21-07(M)(4) are applicable requirements for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rules 3745-21-07(G) and 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 rules 3745-21-07(G)(1) and 21-07(M)(4) are applicable requirements when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rules 3745-21-07(G) and 21-07(M) pursuant to OAC rules 3745-21-07(G)(9)(e) and 21-07(M)(5)(c) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

b. For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

c. As specified in OAC rules 3745-21-07(G)(9)(c) and 21-07(M)(5)(d), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rules 3745-21-07(G) and 21-07(M):

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

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

iii. the volatile content is not a photochemically reactive material.

d. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

b)(1)d., b)(1)f., b)(2)b., b)(2)c.iii, d)(4), e)(3), e)(4), f)(1)d and f)(1)e.

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).

[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 rules 3745-21-07(G) and 21-07(M) as specified in b)(2)e.; 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 rules 3745-21-07(G) and 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 rules 3745-21-07(G)(1) and 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.

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

(4) On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) 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).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) PTI #13-03882]

(5) The permittee shall maintain copies of all the stack test results used to develop the OC and particulate emission factors. The following current OC and particulate emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
FE4-329A	0.0308	0.0144	N
E-3241	0.0011	0.0078	Y

*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. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

[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.

[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 still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will 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

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 rules 3745-21-07(G) and 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 rules 3745-21-07(G) and 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 (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 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) and OAC rule 3745-31-05(A)(3) PTI #13-03882]

(4) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) PTI #13-03882]

(5) 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)]

(6) 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) PTI #13-03882]

(7) 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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

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) PTI#13-3882]

b. Emission Limitations:
for the lubricants that do come in contact with a 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)(1), d)(3) and d)(5).

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) PTI#13-3882]

c. Emission Limitations:
for the lubricants that do come in contact with a 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)(1), d)(3) and d)(5).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) PTI#13-3882]

d. Emission Limitations:
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1), d)(4) and d)(5).

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) PTI#13-3882]

e. Emission Limitations:
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1), d)(4) and d)(5).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) PTI#13-3882]

Emission Limitations:
OC emissions shall not exceed 7.3 tons/yr.

Applicable Compliance Method:
The annual emission limitation was established by multiplying the pound per day allowable for each pollutant by the maximum operating schedule of 365 days per year and dividing by 2000 pounds per ton. Therefore, provided compliance is maintained with the pounds per day 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) PTI#13-3882]

f. 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 PE limit for this emissions unit may be demonstrated using engineering calculations based on the amount and type of lubricant used and emission factors that have been generated from stack testing.

Actual PE rate, lbs/hr = GRLD x AVFR x TCF x MCF x PCF x (60 minutes/hr)/(7000 grains/lb)
TCF = (460 + 70 degrees, Fahrenheit)/(460 + air temperature, degrees Fahrenheit), deg. F/deg. F
PCF = (actual stack gas pressure, mm Hg)/(760 mm Hg)
MCF = (1 - moisture in air), ft^3 dry air/ft^3 air

AVFR = air volume flow rate, ACFM
ACFM = actual cubic foot per minute, ft^3/min
GRLD = grain loading concentration, grains/ft^3
MCF = stack gas moisture correction factor
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).

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) PTI#13-3882]

g. 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 8760 hours per year and dividing by 2000 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) PTI#13-3882]

(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 come in contact with a flame and worst case lubricants that do not come in contact with a 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) PTI#13-3882]

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) PTI#13-3882]

(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) PTI#13-3882]

33. P165, 5083 Blocking Press

Operations, Property and/or Equipment Description:

Building 112, 5,000 ton blocking press 5083 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 , 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 13-3882 issued March 7, 2002)	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, 1.16 lbs/hr which is based on 3,363 DSCFM and 5.07 tons/yr. This rule also includes compliance with the requirements of OAC rules 3745-17-07(A)(1), 3745-21-07(G)(1), and 3745-21-07(G)(2).
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).
d.	OAC rule 3745-21-07(G)(1)	For the lubricants that come in contact with a flame, the 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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		emissions generated by this emissions unit. See b)(2)a.
e.	OAC rule 3745-21-07(M)(4)	For the lubricants that come in contact with a 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.
f.	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See b)(2)b. See b)(2)d.
g.	OAC rule 3745-21-07(M)	For the lubricants that do not come in contact with a flame, there are no applicable requirements from this rule.

(2) Additional Terms and Conditions

a. The Ohio EPA has determined that OAC rules 3745-21-07(G)(1) and 21-07(M)(4) are applicable requirements for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rules 3745-21-07(G) and 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 rules 3745-21-07(G)(1) and 21-07(M)(4) are applicable requirements when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rules 3745-21-07(G) and 21-07(M) pursuant to OAC rules 3745-21-07(G)(9)(e) and 21-07(M)(5)(c) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

b. For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

c. As specified in OAC rules 3745-21-07(G)(9)(c) and 21-07(M)(5)(d), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rules 3745-21-07(G) and 21-07(M):

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

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

iii. the volatile content is not a photochemically reactive material.

d. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

b)(1)d., b)(1)f., b)(2)b., b)(2)c.iii, d)(4), e)(3), e)(4), f)(1)d and f)(1)e.

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).

[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 rules 3745-21-07(G) and 21-07(M) as specified in b)(2)e.; 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 rules 3745-21-07(G) and 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 rules 3745-21-07(G)(1) and 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.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) PTI #13-03882]

(4) On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) 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).

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

(5) The permittee shall maintain copies of all the stack test results used to develop the OC and particulate emission factors. The following current OC and particulate emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
FE4-329A	0.0308	0.0144	N
E-3241	0.0011	0.0078	Y

*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. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

[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.

[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 still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will 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

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 rules 3745-21-07(G) and 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 rules 3745-21-07(G) and 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 (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 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) and OAC rule 3745-31-05(A)(3) PTI #13-03882]

(4) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) PTI #13-03882]

(5) 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)]

(6) 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) PTI #13-03882]

(7) 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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

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) PTI#13-3882]

b. Emission Limitations:
for the lubricants that do come in contact with a 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)(1), d)(3) and d)(5).

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) PTI#13-3882]

c. Emission Limitations:
for the lubricants that do come in contact with a 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)(1), d)(3) and d)(5).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) PTI#13-3882]

d. Emission Limitations:
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1), d)(4) and d)(5).

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) PTI#13-3882]

e. Emission Limitations:
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1), d)(4) and d)(5).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) PTI#13-3882]

f. Emission Limitations:
OC emissions shall not exceed 7.3 tons/yr.

Applicable Compliance Method:
The annual emission limitation was established by multiplying the pound per day allowable for each pollutant by the maximum operating schedule of 365 days per year and dividing by 2000 pounds per ton. Therefore, provided compliance is maintained with the pounds per day 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) PTI#13-3882]

g. Emission Limitation:
Particulate emissions (PE) shall not exceed 0.03 grain per DSCF of exhaust gas, 1.16 lbs/hr.

Applicable Compliance Method:
Compliance with the PE limit for this emissions unit may be demonstrated using engineering calculations based on the amount and type of lubricant used and emission factors that have been generated from stack testing.

Actual PE rate, lbs/hr = GRLD x AVFR x TCF x MCF x PCF x (60 minutes/hr)/(7000 grains/lb)
TCF = (460 + 70 degrees, Fahrenheit)/(460 + air temperature, degrees Fahrenheit), deg. F/deg. F

PCF = (actual stack gas pressure, mm Hg)/(760 mm Hg)
MCF = (1 - moisture in air), ft^3 dry air/ft^3 air

AVFR = air volume flow rate, ACFM
ACFM = actual cubic foot per minute, ft^3/min
GRLD = grain loading concentration, grains/ft^3
MCF = stack gas moisture correction factor
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).

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) PTI#13-3882]

h. Emission Limitation:
Particulate emissions (PE) shall not exceed 5.07 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 8760 hours per year and dividing by 2000 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) PTI#13-3882]

(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

come in contact with a flame and worst case lubricants that do not come in contact with a 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) PTI#13-3882]

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) PTI#13-3882]

(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) PTI#13-3882]

34. 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 8 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.

*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.

[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.

[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. 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)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

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:
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) shall be used to demonstrate compliance. 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.

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, 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, 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.

P402 is a stack and a fugitive dust source.

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

35. P432, Torch Pit #2

Operations, Property and/or Equipment Description:

Building 206, acetylene arc cutting system - torch pit number 2 (west) (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 #13-2232 issued April 10, 1991)	See b)(2)a.
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).

(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, 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.
PM10 shall not exceed 13.5 tons per year.
PM10 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) 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. 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:

a. a description of the corrective action;

b. the date corrective action was completed;

c. the date and time the deviation ended;

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

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

f. 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 collect and record the following information on a monthly basis:

a. the amount of metal cut, in pounds;

b. the actual particulate emission factor, lbs PE/lb metal cut;

c. the operating hours for this emissions unit; and

d. the actual average PE rate for this emissions unit, in lbs/hr; i.e., (a) x (b) x (1 - the fractional control efficiency for the control device)/(c).

[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 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.

[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 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 quarterly deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each month during which the actual average hourly PE rate exceeded 3.43 lbs/hr, and the actual average hourly PE rate for each such month.

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

(2) 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)]

(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 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)]

(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)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation:
Visible particulate emissions from the dust collector baghouse stack shall not exceed 5% opacity.

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) PTI #13-2232]

b. Emission Limitations:
PE shall not exceed 0.01 grains/DSCF.
PE shall not exceed 3.43 lbs/hr.

Applicable Compliance Method:

Compliance with the lb/hr limitation shall be based upon the monitoring and record keeping requirements in d)(3).

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) PTI #13-2232]

c. Emission Limitations:
PE shall not exceed 15 tons per year.
PM10 shall not exceed 13.5 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 8760 hours

per year and dividing by 2000 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) PTI #13-2232]

(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 P032 and P432 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 within 12 months of permit issuance for one of the following identical emissions units P032 and P432.

The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PE 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. 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)]

36. 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.
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(G)(1)	For the lubricants that come in contact with a flame, the organic compound (OC) emissions shall not exceed 3 lbs/hr and 15 lbs/day or the permittee shall achieve

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		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)(4)	For the lubricants that come in contact with a 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.
g.	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See b)(2)d. See b)(2)f.
h.	OAC rule 3745-21-07(M)	For the lubricants that do not come in contact with a flame, there are no applicable requirements from this rule.

(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 rules 3745-21-07(G)(1) and 21-07(M)(4) are applicable requirements for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rules 3745-21-07(G) and 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 rules 3745-21-07(G)(1) and 21-07(M)(4) are applicable requirements when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rules 3745-21-07(G) and 21-07(M) pursuant to OAC rules 3745-21-07(G)(9)(e) and 21-07(M)(5)(c) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

d. For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

e. As specified in OAC rules 3745-21-07(G)(9)(c) and 21-07(M)(5)(d), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rules 3745-21-07(G) and 21-07(M):

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

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

iii. the volatile content is not a photochemically reactive material.

f. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

b)(1)e., b)(1)g., b)(2)d., b)(2)e.iii, d)(4), e)(3), e)(4), f)(1)c and f)(1)d.

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).

[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 rules 3745-21-07(G) and 21-07(M) as specified in b)(2)e.; 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 rules 3745-21-07(G) and 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 rules 3745-21-07(G)(1) and 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.

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

(4) On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) 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).

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

(5) The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
E-2321	0.0279	0.3561	N

*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. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

[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.

[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 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.

[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 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 rules 3745-21-07(G) and 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 rules 3745-21-07(G) and 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 (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 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)]

(4) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

[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 each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

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

(6) 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)]

(7) 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)]

(8) 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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitations:
for the lubricants that come in contact with a 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)(1), d)(3) and d)(5).

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 Limitations:
for the lubricants that come in contact with a 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)(1), d)(3) and d)(5).

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

c. Emission Limitations:
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1), d)(4) and d)(5).

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)]

d. Emission Limitations:
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1), d)(4) and d)(5).

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

e. 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).

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)]

f. 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)]

g. 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)]

(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 and the control efficiency requirement for OC as specified in b)(1). Separate emission tests shall be performed while using worst case lubricants that come in contact with a flame and worst case lubricants that do not come in contact with a 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)]

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)]

37. Emissions Unit Group -Bldg 101 mechanical presses: P017, P018, P019, P129, P429,

EU ID	Operations, Property and/or Equipment Description
P017	Building 101, 1,300 ton Ajax mechanical press complex for the production of metal forgings, operating at a maximum batch process weight rate of 1,000 lbs/hr of metal. Emissions are exhausted through a vertical stack. P017 and the water spray tunnel stack were installed in 1957.
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.
P429	Building 101, number 2504, a 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. P429 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.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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(G)(1)	For the lubricants that come in contact with a 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)(4)	For the lubricants that come in contact with a 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.
g.	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See b)(2)d. and b)(2)f.
h.	OAC rule 3745-21-07(M)	For the lubricants that do not come in contact with a flame, there are no applicable requirements from this rule.

(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 rules 3745-21-07(G)(1) and 21-07(M)(4) are applicable requirements for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rules 3745-21-07(G) and 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 rules 3745-21-07(G)(1) and 21-07(M)(4) are applicable requirements when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rules 3745-21-07(G) and 21-07(M) pursuant to OAC rules 3745-21-07(G)(9)(e) and 21-07(M)(5)(c) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

d. For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

e. As specified in OAC rules 3745-21-07(G)(9)(c) and 21-07(M)(5)(d), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rules 3745-21-07(G) and 21-07(M):

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

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

iii. the volatile content is not a photochemically reactive material.

f. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

b)(1)e., b)(1)g., b)(2)d., b)(2)e.iii, d)(4), e)(3), e)(4), f)(1)c and f)(1)d.

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).

[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 rules 3745-21-07(G) and 21-07(M) as specified in b)(2)e.; 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 rules 3745-21-07(G) and 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 rules 3745-21-07(G)(1) and 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.

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

(4) On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) 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).

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

(5) The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
PL-1451	------	0.3753	N
PL-592	------	0.296	N

*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. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

[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.

[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 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.

[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 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 rules 3745-21-07(G) and 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 rules 3745-21-07(G) and 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 (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 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)]

(4) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

[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 each day during which the average hourly PE rate exceeded 10 lbs/hr, and the actual average hourly PE rate for each such day.

(6) 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)]

(7) 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)]

(8) 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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitations:
for the lubricants that come in contact with a 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)(1), d)(3) and d)(5).

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 Limitations:
for the lubricants that come in contact with a 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)(1), d)(3) and d)(5).

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

c. Emission Limitations:
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1), d)(4) and d)(5).

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)]

d. Emission Limitations:
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1), d)(4) and d)(5).

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

e. 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).

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)]

f. 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)]

g. 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)]

(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 P017, P018, P019, P129, and P429 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 P017, P018, P019, P129, and P429.

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 come in contact with a flame and worst case lubricants that do not come in contact with a 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)]

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 -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 8 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 8 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 8 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 8 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 8 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.
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.

[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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

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) shall be used to demonstrate compliance. 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.

39. 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 8 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 8 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 8 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 8 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 8 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.
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.

[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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

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) shall be used to demonstrate compliance. 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.

40. 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 8 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 8 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 8 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.
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.

[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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

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) shall be used to demonstrate compliance. 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.

41. 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 8 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 8 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.
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.

[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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

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) shall be used to demonstrate compliance. 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.

42. 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 8 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 8 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 8 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.
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.

*This emission factor is based on prior emission testing; may be updated based on additional emission tests performed in accordance with f)(2) in any of the identical emissions units P055, P102, and P402.

[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.

[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.

[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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

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 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) shall be used to demonstrate compliance. 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)(2).

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.

43. 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 8 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 8 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 8 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 8 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.
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.

[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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

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) shall be used to demonstrate compliance. 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.

44. Emissions Unit Group -Bldg 206 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.
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.

(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 this emissions unit shall be vented to the cartridge filter at all times the emissions unit is in operation.

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. 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:

a. a description of the corrective action;

b. the date corrective action was completed;

c. the date and time the deviation ended;

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

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

f. 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 Emission data
March 18, 1982 PE factor, 0.025 lb PE/lb metal ground
. actual PE rate at 12.7 lbs PE/hr
. cleaning at a rate of 508 lbs metal parts/hr

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

(4) The permittee shall collect and record the following information on a monthly basis for emission units P091 - P094:

a. the amount of metal ground, in pounds;

b. the actual average particulate emission factor, lbs PE/lb metal ground;

c. the operating hours of this emissions unit; and

d. the average actual PE rate for this emissions unit, lbs PE/hr, i.e., (a) x (b) x (1-fractional control efficiency for the cartridge filters) / (c).

[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 cartridge filter 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.

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

(6) 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 quarterly deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) that identify each month during which the average hourly PE exceeded the allowable PE limit in b)(1) and the actual average hourly PE rate for each such month.

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

(2) 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)]

(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 cartridge filter 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 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)]

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. 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)]

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:
Compliance with the PE limit for this emissions unit may be determined using the following equations:

For determining uncontrolled hourly PE rate:
UNCPE91, lbs PE/hr = (UNCFAC91, lbs PE/lb Metal) x (METAL91, lbs Metal/month)/(hrs of operation/month)
UNCPE92, lbs PE/hr = (UNCFAC92, lbs PE/lb Metal) x (METAL92, lbs Metal/month)/(hrs of operation/month)
UNCPE93, lbs PE/hr = (UNCFAC93, lbs PE/lb Metal) x (METAL93, lbs Metal/month)/(hrs of operation/month)
UNCPE94, lbs PE/hr = (UNCFAC94, lbs PE/lb Metal) x (METAL94, lbs Metal/month)/(hrs of operation/month)

COMBUNCPE, lbs PE/hr = UNCPE91, lbs PE/hr + UNCPE92, lbs PE/hr + UNCPE93, lbs PE/hr + UNCPE94, lbs PE/hr

For determining actual hourly PE rate:
ACTPE91, lbs PE/hr = [(100 - ECEB91)/100] x UNCPE91, lbs PE/hr
ACTPE92, lbs PE/hr = [(100 - ECEB92)/100] x UNCPE92, lbs PE/hr
ACTPE93, lbs PE/hr = [(100 - ECEB93)/100] x UNCPE93, lbs PE/hr
ACTPE94, lbs PE/hr = [(100 - ECEB94)/100] x UNCPE94, lbs PE/hr

COMBACTPE, lbs PE/hr = ACTPE91, lbs PE/hr + ACTPE92, lbs PE/hr + ACTPE93, lbs PE/hr + ACTPE94, lbs PE/hr

Where:
METAL91, lbs/month = Amount of metal ground in EU# P091
METAL92, lbs/month = Amount of metal ground in EU# P092
METAL93, lbs/month = Amount of metal ground in EU# P093
METAL94, lbs/month = Amount of metal ground in EU# P094

ACTPE91 = actual hourly PE rate of P091, lbs PE/hr
ACTPE92 = actual hourly PE rate of P092, lbs PE/hr
ACTPE93 = actual hourly PE rate of P093, lbs PE/hr
ACTPE94 = actual hourly PE rate of P094, lbs PE/hr

COMBACTPE = Combined actual hourly PE rate of P091, P092, P093 and P094 lbs PE/hr

ECEB91 = emission control efficiency of the cartridge filter of P091, %
ECEB92 = emission control efficiency of the cartridge filter of P092, %
ECEB93 = emission control efficiency of the cartridge filter of P093, %
ECEB94 = emission control efficiency of the cartridge filter of P094, %

UNCFAC91 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC92 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC93 = uncontrolled PE factor, lbs PE/lb metal ground
UNCFAC94 = uncontrolled PE factor, lbs PE/lb metal ground

UNCPE91 = uncontrolled hourly PE rate of P091, lbs PE/hr
UNCPE92 = uncontrolled hourly PE rate of P092, lbs PE/hr
UNCPE93 = uncontrolled hourly PE rate of P093, lbs PE/hr
UNCPE94 = uncontrolled hourly PE rate of P094, lbs PE/hr

COMBUNCPE = Combined uncontrolled hourly PE rate of P091, P092, P093 and P094, lbs PE/hr

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)]

(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 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. 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) None.

45. 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. Particulate emissions (PE) shall not exceed 1.3 lbs/hr and 0.01 grain/dry standard cubic foot (gr/DSCF) outlet emission rate. Particulate emissions (PE) shall not exceed 5.65 tons per year. Volatile organic compounds (VOC) emissions shall not exceed 2.74 tons per year. See b)(2)a. This rule also includes compliance with the requirements of OAC rules 3745-17-07(A)(1), 3745-17-08(B), 3745-21-

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		07(G)(1) and 3745-21-07(G)(2).
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity, as a 6-minute average.
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(G)(1)	For the lubricants that come in contact with a 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)d.
g.	OAC rule 3745-21-07(M)(4)	For the lubricants that come in contact with a 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)d.
h.	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See b)(2)d. See b)(2)g.
i.	OAC rule 3745-21-07(M)	For the lubricants that do not come in contact with a 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 this source may be vented inside the building or directly to the atmosphere. When oil-based lubricants are utilized, exhaust from this source 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 rules 3745-21-07(G)(1) and 21-07(M)(4) are applicable requirements for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rules 3745-21-07(G) and 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 rules 3745-21-07(G)(1) and 21-07(M)(4) are applicable requirements when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rules 3745-21-07(G) and 21-07(M) pursuant to OAC rules 3745-21-07(G)(9)(e) and 21-07(M)(5)(c) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

d. For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

e. As specified in OAC rules 3745-21-07(G)(9)(c) and 21-07(M)(5)(d), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rules 3745-21-07(G) and 21-07(M):

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

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

iii. the volatile content is not a photochemically reactive material.

f. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the

U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

b)(1)f., b)(1)h., b)(2)d., b)(2)e.iii, d)(4), e)(3), e)(4), f)(1)c and f)(1)d.

g. 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) 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).

[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 rules 3745-21-07(G) and 21-07(M) as specified in b)(2)e.; 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 rules 3745-21-07(G) and 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 rules 3745-21-07(G)(1) and 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.

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

(4) On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) 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).

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

(5) The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
E-1988	0.0363	0.023	Y
E-2715	0.0009	4.40E-05	N
E-3146	0.0083	0.08	Y
E-2543A	0.0149	0.00394	Y
E-3699	0.0149	0.00394	Y
E-3672	0.0009	4.40E-05	N
E-3146A	0.048	0.0064	Y

*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 particualte 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. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

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

(6) The permittee shall collect, record and maintain the following information each calendar year for this emissions unit:

a. summation of actual daily PE rate, in lbs;

b. summation of actual daily VOC emission rate, in lbs;

c. converstion factor, 1 ton/2000 lbs;

d. the actual annual PE rate, i.e., (a) x (c), tons of PE per year; and

e. 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)]

(7) 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.

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

(8) 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.

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

(9) 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)]

(10) 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 4.0 to 8.0 inches of water.

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

(11) 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. 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:

a. a description of the corrective action;

b. the date corrective action was completed;

c. the date and time the deviation ended;

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

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

f. 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 rules 3745-21-07(G) and 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 rules 3745-21-07(G) and 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 (a) each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 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)]

(4) The permittee shall submit quarterly deviation (excursion) reports to the Cleveland DAQ that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

[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 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)]

(6) 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)]

(7) The permittee shall submit annual reports to the Cleveland DAQ that specify the total emissions of PE and VOC from this emissions unit 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 this emissions unit in the annual Fee Emission Report.

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

(8) 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)]

(9) 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)]

(10) 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)(10)a. (above) where a prompt investigation was not conducted;

d. each incident of deviation described in e)(10)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)(10)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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitations:
for the lubricants that come in contact with a 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)(1), d)(3) and d)(5).

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) PTI #13-3067]

b. Emission Limitations:
for the lubricants that come in contact with a 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)(1), d)(3) and d)(5).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) PTI #13-3067]

c. Emission Limitations:
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1), d)(4) and d)(5).

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) PTI #13-3067]

d. Emission Limitations:
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1), d)(4) and d)(5).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) PTI #13-3067]

e. 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) PTI #13-3067]

f. Emission Limitation:
Visible emissions of fugitive dust shall not exceed 5% opacity, as a 3-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). 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) and OAC rule 3745-31-05(A)(3) PTI #13-3067]

g. 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).

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 limitations may be based upon the monitoring and record keeping in d)(1). A PE factor in lb PE/lb lubricant 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 from the Cleveland DAQ.

Actual PE concentration, gr/DSCF = (Actual hourly PE rate, lbs PE/hr) x (7000 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

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) PTI #13-3067]

h. Emission Limitation:
Particulate emissions (PE) shall not exceed 5.65 tons per year.

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) PTI #13-3067]

i. Emission Limitation:
Volatile organic compound (VOC) emissions shall not exceed 2.74 tons per year.

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) 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 P104, P155, P156, P157, and P158 are identical processes, but P104 has a different control device than the other emission 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 P104, 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 come in contact with a flame and worst case lubricants that do not come in contact with a 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) 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)]

46. 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. Particulate emissions (PE) shall not exceed 1.4 lbs/hr and 0.01 grain/dry standard cubic foot (gr/DSCF) outlet emission rate. Particulate emissions (PE) shall not exceed 6.15 tons per year. Volatile organic compound (VOC) emissions shall not exceed 2.74 tons per year. See b)(2)a. This rule also includes compliance with the requirements of OAC rules 3745-17-07(A)(1), 3745-17-08(B), 3745-21-07(G)(1) and 3745-21-07(G)(2).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emsissions from any stack shall not exceed 20% opacity, as a 6-minute average.
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(G)(1)	For the lubricants that come in contact with a 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)d.
g.	OAC rule 3745-21-07(M)(4)	For the lubricants that come in contact with a 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)d.
h.	OAC rule 3745-21-07(G)(2)	For the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr and 40 lbs/day. See b)(2)e. See b)(2)g.
i.	OAC rule 3745-21-07(M)	For the lubricants that do not come in contact with a 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 this source may be vented inside the building or directly to the atmosphere. When oil-based lubricants are utilized, exhaust from this source 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 rules 3745-21-07(G)(1) and 21-07(M)(4) are applicable requirements for this emissions unit for each liquid organic lubricant, which is not exempt from the emission limitations of OAC rules 3745-21-07(G) and 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 rules 3745-21-07(G)(1) and 21-07(M)(4) are applicable requirements when these lubricants are employed. In addition, these OC emissions are not exempt from OAC rules 3745-21-07(G) and 21-07(M) pursuant to OAC rules 3745-21-07(G)(9)(e) and 21-07(M)(5)(c) because the parts are at a temperature exceeding 220 degrees Fahrenheit (typically a minimum of 600 degrees Fahrenheit).

d. For the lubricants that do not come into contact with a flame, this emissions unit is subject to the emission limitations specified in OAC rule 3745-21-07(G)(2) during each day when a photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5)), or substance containing such photochemically reactive material is employed.

e. As specified in OAC rules 3745-21-07(G)(9)(c) and 21-07(M)(5)(d), lubricants meeting all of the following criteria are exempt from the emission limitations of OAC rules 3745-21-07(G) and 21-07(M):

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

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

iii. the volatile content is not a photochemically reactive material.

f. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the

U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision:

b)(1)f., b)(1)h., b)(2)d., b)(2)e.iii, d)(4), e)(3), e)(4), f)(1)c and f)(1)d.

g. 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) 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).

[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 rules 3745-21-07(G) and 21-07(M) as specified in b)(2)e.; 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 rules 3745-21-07(G) and 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 rules 3745-21-07(G)(1) and 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.

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

(4) On each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the permittee shall record the following information for the lubricants that do not come in contact with a flame (i.e., subject to OAC rule 3745-21-07(G)(2) 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).

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

(5) The permittee shall maintain copies of all the stack test results used to develop the OC and PE emission factors. The following OC and PE emission factors were developed based on previous emission testing:

Lubricant ID*	OC (lb OC/lb lubricant)	PE (lb PE/lb lubricant)	Flame
E-1988	0.0363	0.023	Y
E-2715	0.0009	4.40E-05	N
E-3146	0.0083	0.08	Y
E-2543	0.0083	0.08	Y
E-2543A	0.0149	0.00394	Y
E-3699	0.0149	0.00394	Y
E-3672	0.0009	4.40E-05	N
E-3146A	0.048	0.0064	Y

*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 particualte 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. The permittee shall conduct emission testing to develop OC and PE emission factors for any new lubricant employed unless the permittee assumes that all of the OC and/or PE in the lubricant is emitted.

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

(6) The permittee shall collect, record and maintain the following information each calendar year for this emissions unit:

a. summation of actual daily PE rate, in lbs;

b. summation of actual daily VOC emission rate, in lbs;

c. converstion factor, 1 ton/2000 lbs;

d. the actual annual PE rate, i.e., (a) x (c), tons of PE per year; and

e. 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)]

(7) 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.

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

(8) 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.

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

(9) 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)]

(10) 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 4.0 to 8.0 inches of water.

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

(11) 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. 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:

a. a description of the corrective action;

b. the date corrective action was completed;

c. the date and time the deviation ended;

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

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

f. 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 rules 3745-21-07(G) and 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 rules 3745-21-07(G) and 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 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(G), is employed, the lubricant does not come in contact with a flame, and the average hourly OC emission rate exceeded 8 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)]

(4) The permittee shall submit quarterly deviation (excursion) reports that identify each day during which a liquid organic lubricant, which is not exempt from the emission limitations of OAC rule 3745-21-07(G), is employed, the lubricant does not come in contact with a flame, and the OC emission rate exceeded 40 pounds per day and (b) the actual OC emission rate for each such day.

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

(5) 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)]

(6) 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)]

(7) The permittee shall submit annual reports that specify the total emissions of PE and VOC from this emissions unit 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 this emissions unit in the annual Fee Emission Report.

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

(8) The permittee shall submit semiannual written reports 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 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)]

(9) 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 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)]

(10) 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)(10)a. (above) where a prompt investigation was not conducted;

d. each incident of deviation described in e)(10)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)(10)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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitations:
for the lubricants that come in contact with a 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)(1), d)(3) and d)(5).

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) PTI #13-3149]

b. Emission Limitations:
for the lubricants that come in contact with a 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)(1), d)(3) and d)(5).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) PTI #13-3149]

c. Emission Limitations:
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 8 lbs/hr

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1), d)(4) and d)(5).

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) PTI #13-3149]

d. Emission Limitations:
for the lubricants that do not come in contact with a flame, the OC emissions shall not exceed 40 lbs/day

Applicable Compliance Method:
Compliance shall be determined pursuant to the monitoring and record keeping in d)(1), d)(4) and d)(5).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) PTI #13-3149]

e. 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) PTI #13-3149]

f. Emission Limitation:
Visible emissions of fugitive dust shall not exceed 5% opacity, as a 3-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). 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) and OAC rule 3745-31-05(A)(3) PTI #13-3149]

g. 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).

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 limitations may be based upon the monitoring and record keeping in d)(1). A PE factor in lb PE/lb lubricant 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 from the Cleveland DAQ.

Actual PE concentration, gr/DSCF = (Actual hourly PE rate, lbs PE/hr) x (7000 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

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) PTI #13-3149]

h. Emission Limitation:
Particulate emissions (PE) shall not exceed 6.15 tons per year.

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) PTI #13-3149]

i. Emission Limitation:
Volatile organic compound (VOC) emissions shall not exceed 2.74 tons per year.

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) 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 P104, P155, P156, P157, and P158 are identical processes, but P104 has a different control device than the other emission 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 P104, 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 come in contact with a flame and worst case lubricants that do not come in contact with a 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) 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)]

47. 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 (#2 fuel oil as backup) boiler. B008 was installed in August 1997.
B009	Nebraska Boiler Company model NS-F-73SH: 98.8 mmBtu/hr natural gas-fired (#2 fuel oil as backup) 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) (PTI #13-3174 issued June 20, 1997)	Lower nitrogen oxide (NO_X) burners and pollutant specific emission limits See b)(2)a below. This rule also includes compliance with the requirements of OAC rules 3745-17-10(B)(1) and 40 CFR, Part 60, Subpart Dc. The nitrogen oxide (NO_X) emission limitations specified by this rule are less stringent than the nitrogen oxide emission limitation established pursuant to OAC rule 3745-110-03.
b.	OAC rule 3745-31-05(C) (PTI #13-3174 issued June 20, 1997)	See b)(2)b. through b)(2)f., c)(2 and c)(3).
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, when burning natural

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		gas (NG). The emission limitations specified by this rule are less stringent than the emission limitations established in 40 CFR Part 60, Subpart Dc when burning #2 fuel oil.
d.	OAC rule 3745-17-10(B)(1)	Particulate emissions (PE) shall not exceed 0.020 lb per mmBtu of actual heat input.
e.	OAC rule 3745-18-06(D)	The sulfur dioxide (SO_2) emission limitation specified by this rule for #2 fuel oil is less stringent than the sulfur dioxide emission limitation established pursuant to 40 CFR, Part 60, Subpart Dc. There are no SO_2 emission limitations when burning only natural gas.
f.	OAC rule 3745-110-03(B)	Nitrogen oxide emissions (NO_X) shall not exceed 0.1 lb per mmBtu of actual heat input. When burning fuel oil: See b)(2)g. and b)(2)h. below.
g.	40 CFR, Part 60, Subpart Dc	The #2 fuel oil shall contain no greater than 0.5 weight percent of sulfur. Visible particulate emissions from any exhaust stack shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 27% opacity when burning #2 fuel oil.
h.	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:

When burning natural gas:
Carbon monoxide (CO): 8.14 lbs/hr

When burning #2 fuel oil:
CO: 3.68 lbs/hr
SO_2: 23.8 lbs/hr

b. The total annual PE from boilers B008 and B009 combined shall be limited to 7.0 tons per year.

c. The total annual SO_2 emissions from boilers B008 and B009 combined shall be limited to 112 tons per year.

d. The total annual NO_X emissions from boilers B008 and B009 combined shall be limited to 150 tons per year.

e. The total annual CO emissions from boilers B008 and B009 combined shall be limited to 17.9 tons per year.

f. The permittee shall notify the Cleveland Division of Air Quality before any fuel oil is used in this boiler. The notification shall be in writing.

g. This emissions unit is not subject to the requirements of this rule while burning fuel during periods of gas curtailment, gas supply emergencies, or periodic testing on fuel oil. Periodic testing of the fuel oil shall not exceed 48 hours during any calendar year.

h. If the permittee uses the fuel oil for more than a backup/emergency basis (as noted in b)(2)g. above), then the permittee may be required to test and comply with the allowable limit of 0.12 lb NO_X/mmBtu for fuel oil.

c) Operational Restrictions

(1) The permittee shall use #2 fuel oil that contains no greater than 0.5 weight % of sulfur in this emissions unit.

The #2 fuel oil sulfur content limit applies at all times, including periods of startup, shutdown and malfunction.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(A)(3) PTI #13-3174]

(2) The maximum annual #2 fuel oil usage for this emissions unit shall not exceed 1,400,000 gallons per rolling, 12-month period.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(A)(3) PTI #13-3174]

(3) The maximum annual natural gas usage of boilers B008 and B009 shall not exceed 1,974.3 mm cu. ft., based on a rolling, 12-month summation of the natural gas usage.

[Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(A)(3) PTI #13-3174]

(4) The permittee shall burn only natural gas or #2 fuel oil in this emissions unit.

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

d) Monitoring and/or Recordkeeping Requirements

(1) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as the monitoring and record keeping requirements contained in Permit to Install #13-3174, issued on June 20, 1997: d)(2) and d)(3). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-77-07(A)(3)(a)(ii)]

(2) The permittee shall maintain monthly records of the following information:

a. For #2 fuel oil:

i. the name of the oil supplier;

ii. copies of the oil supplier's analyses for the sulfur content of each shipment of oil and a written statement from the oil supplier that each shipment of oil complies with the specifications under the definition of distillate oil in 40 CFR 60.41c;

iii. the gallons of fuel oil used in B008 and B009; and

iv. the rolling, 12-month summation of the monthly #2 fuel oil usage for B008 and B009, in gallons.

b. For natural gas:

i. the cu. ft. of natural gas used in B008 and B009; and

ii. the rolling, 12-month summation of the monthly natural gas usage for B008 and B009, in cu. ft.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) PTI #13-3174]

(3) For each day during which the permittee burns a fuel other than natural gas or #2 fuel oil, 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) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as the reporting requirements contained in Permit to Install #13-3174, issued on June 20, 1997: e)(2) and e)(3). The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-77-07(A)(3)(a)(ii)]

(2) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month usage restrictions for natural gas and #2 fuel oil and the 0.5%, by weight, sulfur limitation for the #2 fuel oil.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements specified in the General Terms and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) PTI #13-3174]

(3) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas or #2 fuel oil 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 emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation:
Visible particulate emissions from any exhaust stack shall not exceed 20% opacity (6-minute average), except for one 6-minute period per hour of not more than 27% opacity when burning natural gas and/or #2 fuel oil.

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) PTI #13-3174]

b. Emission Limitation:
Particulate emissions (PE) shall not exceed 0.020 lb per mmBtu of actual heat input.

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 1000 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.)/(1000 Btu/cu. ft.) = 0.0019 lb PE/mmBtu

For #2 fuel oil, compliance may be determined by dividing the emission factor of 2.0 lbs PE/1000 gallon for #2 fuel oil by the fuel oil gross heating value of 142,300 Btu/gallon. This emission factor is specified in the USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.3, Table 1.3-1 (9/98).

Actual PE rate = (2.0 lbs PE/1000 gallons)/(142,300 Btu/gallon) = 0.014 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) PTI #13-3174]

c. Emission Limitation:
The #2 fuel oil shall contain no greater than 0.5 weight % of sulfur.

Applicable Compliance Method:
Compliance shall be based on the records for sulfur content for each shipment of #2 fuel oil received specified in d)(2) of these terms and conditions.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) PTI #13-3174]

d. Emission Limitation:
Sulfur dioxide (SO_2) emissions shall not exceed 23.8 lbs/hr when burning #2 fuel oil.

Applicable Compliance Method:
Compliance may be determined by multiplying the emission factor of 142 lbs SO_2/1000 gallons of #2 fuel oil by sulfur content in weight percent and by the boiler heat input in Btu/hr, and then dividing the resultant product by the fuel oil gross heating value in Btu/gallon. This emission factor is specified in the USEPA's Compilation of Air Pollution Emission Factors, AP-42, Fifth Edition, Section 1.3, Table 1.3-1 (9/98).

Actual hourly SO_2 emission rate = (142 lbs SO_2/1000 gallons) x (0.241) x (98.8 mmBtu/hr)/(142,300 Btu/gallon) = 23.76 lbs SO_2/hr

If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission testing conducted in accordance with the Methods 1 through 4, and 6 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) PTI #13-3174]

e. Emission Limitations:
Carbon monoxide (CO) emissions shall not exceed 8.14 lbs/hr when burning natural gas.

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 1000 Btu/cu. ft.

Actual hourly CO emission rate = (84 lbs CO/mm cu. ft.) x (98.8 mmBtu/hr)/(1000 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) PTI #13-3174]

f. Emission Limitations:
Carbon monoxide (CO) emissions shall not exceed 3.68 lbs/hr when burning #2 fuel oil

Applicable Compliance Method:
Compliance may be determined by multiplying the appropriate emission factor for fuel oil from USEPA's Compilation of Air Pollution Emission Factors, AP-42, Fifth Edition, Section 1.3, Table 1.3-1 (9/98) and by the boiler heat input in Btu/hr, and then dividing the resultant product by the fuel oil gross heating value of 142,300 Btu/gallon.

Actual hourly CO emission rate = (5 lbs CO/1000 gallons) x (98.8 mmBtu/hr)/(142,300 Btu/gallon) = 3.47 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) PTI #13-3174]

g. Emission Limitations:
The total annual PE from B008 and B009 shall be limited to 7.0 tons per year.
The total annual SO_2 emissions from B008 and B009 shall be limited to 112 tons per year.
The total annual NO_X emissions from B008 and B009 shall be limited to 150 tons per year.
The total annual CO emissions from B008 and B009 shall be limited to 17.9 tons per year.

Applicable Compliance Method:
Compliance with the total annual emission limitations may be determined by combining the annual emission rates in tons per year for B008 and B009 when burning natural gas and/or burning #2 fuel oil.

The total annual emission rate in tons per year for B008 and B009 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 2000 lbs/ton.

The total annual emission rate in tons per year for B008 and B009 when burning #2 fuel oil may be determined by multiplying the appropriate emission factor in lbs/1000 gallons by the #2 fuel oil usage in gallons per year, and then dividing the resultant product by a factor of 2000 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).

The emission factors for burning fuel oil are specified in USEPA's Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Table 1.3-1 (9/98).

In addition, the permitee may utilize emission factors for natural gas and/or fuel oil that are based upon emission testing performed for this emissions unit or an identical unit.

Total actual annual emission rate, tons/yr = (lbs emissions/mm cu. ft.) x (mm cu. ft. NG/yr)/(2000 lbs/ton) + (lbs emissions/1000 gallons #2 fuel oil) x (gallons of #2 fuel oil/yr)/(2000 lbs/ton)

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3) PTI #13-3174]

h. Emission Limitation:
Nitrogen oxide (NO_X) emissions shall not exceed 0.1 lb per mmBtu of actual heat input.

Applicable Compliance Method:
See f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-110-03]

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

Emission testing shall be conducted to demonstrate compliance with the nitrogen oxide emission limitation. Emission testing for nitrogen oxide emissions shall be conducted within the time frame(s) specified in OAC rule 3745-110-04(B).

The following test method shall be employed to demonstrate compliance with the nitrogen oxide emission limitation: Method 7, 7A, 7C, 7D or 7E of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

The test 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 test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test(s) 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 test(s). 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 rules 3745-77-07(C)(1) and 3745-110-05]

g) Miscellaneous Requirements

(1) None.